Astronomy & Astrophysics manuscript no. accepted_20Jan
January 21, 2016

The *Fermi* GBM gamma-ray burst time-resolved spectral catalog: brightest bursts in the first four years

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January 21, 2016

ABSTRACT

Aims. We aim to obtain high-quality time-resolved spectral fits of gamma-ray bursts (GRBs) observed by the Gamma-ray Burst Monitor (GBM) on board the *Fermi* Gamma-ray Space Telescope.
Methods. We perform time-resolved spectral analysis with high temporal and spectral resolution of the brightest bursts observed by *Fermi* GBM in its first 4 years of mission.
Results. We present the complete catalog containing 1,491 spectra from 81 bursts with high spectral and temporal resolution. Distributions of parameters, statistics of the parameter populations, parameter-parameter and parameter-uncertainty correlations, and their exact values are obtained and presented as main results in this catalog. We report a criterion that is robust enough to automatically distinguish between different spectral evolutionary trends between bursts. We also search for plausible blackbody emission components and find that only 3 bursts (36 spectra in total) show evidence of a pure Planck function. It is observed that the averaged time-resolved low-energy power-law index and peak energy are slightly harder than the time-integrated values. Time-resolved spectroscopic results should be used when interpreting physics from the observed spectra, instead of the time-integrated results.

Key words. gamma rays: stars - (stars:) gamma-ray burst: general - methods: data analysis

1. Introduction

Gamma-ray bursts (GRBs) are the most energetic explosions known to humankind. Although discovered in 1967 (Klebesadel et al. 1973) by the *Vela* Satellite Network, the physics of GRBs still remains unsolved. For example, the exact nature of the emission mechanism of the so-called prompt emission phase is still unclear. Today, we know that GRBs are gamma-ray emissions from cosmological sources (Metzger et al. 1997) distributed isotropically across the sky (Meegan et al. 1992; Pendleton et al. 1994; Briggs et al. 1996). The two kinds of GRBs, long/soft and short/hard (Kouveliotou et al. 1993), are thought to have different origins. It is generally believed that long/soft (duration $T_{90} > 2$ s and low-energy photon rich) GRBs are the result of gravitational collapse events from massive progenitors, and short/hard ($T_{90} < 2$ s and high-energy photon rich) GRBs originate from compact merger events.

A powerful method to discern the physical properties and emission mechanisms of GRBs is through detailed spectral analysis. However, the spectral properties of individual GRB may be significantly different. Therefore, analysis of large samples of burst spectra is necessary to obtain a coherent physical picture. Such large spectral catalogs, some time-integrated and some time-resolved, have been published for many hard X-ray or gamma-ray observing instruments, e.g., the *CGRO*/BATSE (25 keV - 2 MeV, Pendleton et al. 1994; Preece et al. 2000; Kaneko et al. 2006; Goldstein et al. 2013), *BeppoSAX*/GRBM (40 - 700 keV, Frontera et al. 2009), *Swift*/XRT (0.2 - 10 keV, Evans et al. 2009), *Swift*/BAT (15 - 150 keV, Sakamoto et al. 2008, 2011), *Fermi*/LAT (20 MeV - 300 GeV, Ackermann et al. 2013), and *Fermi*/GBM (time-integrated, 8 keV - 40 MeV, Nava et al. 2011; Goldstein et al. 2012; Gruber et al. 2014; von Kienlin et al. 2014).

This paper presents the first *Fermi* Gamma-ray Burst Monitor (GBM) gamma-ray burst time-resolved spectral catalog. In contrast to previous time-resolved catalogs of other instruments, the broad energy range covered by the GBM allows a sensitive investigation at energies of a few hundred keV where the peaks or breaks of the prompt emission spectra are located. This

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catalog presents time-resolved fit parameters using standard fit functions, parameter-parameter and parameter-uncertainty correlations, spectral evolutionary trends over time (in particular the peak energy E_p evolution), distributions of spectral slopes (given in photon indices α and β), and plausible blackbody components. A novel measure of the sharpness of the spectral peak has been reported separately for the same burst sample by Yu et al. (2015b). The measure places a strong constraint on the physics of prompt emission models, ruling out an optically thin synchrotron origin for the peak or break of the spectrum in a large majority of cases.

This paper is structured as follows. We describe the characteristics of GBM and the methods of data selection and reduction in Section 2. The fitting models used in this catalog are described in Section 3. The spectral analysis procedure is given in Section 4, and the fitting results are presented in Section 5. We summarize our results and conclude in Section 6. The spectral fitting results are tabulated in Appendix A. Unless otherwise stated, all errors reported in this paper are given at the 1σ confidence level.

2. The data

2.1. Instrumentation

The *Fermi* Gamma-ray Space Telescope, launched in June 2008, harbors two scientific instruments, namely the Gamma-ray Burst Monitor (GBM, Meegan et al. 2009) and the Large Area Telescope (LAT, Atwood et al. 2009). The GBM covers the energy range from 8 keV to 40 MeV, while the LAT is sensitive in the complementary energy range from 30 MeV to 300 GeV. The GBM observes the whole sky which is not occulted by the Earth (> 8 sr) and provides real-time locations for GRB triggers. These real-time locations are circulated via the Gamma-ray Coordination Network[1] (GCN) which allows ground-based follow-up observations. Occasionally, an Autonomous Repoint Request (ARR) can be accepted by the Flight Software (FSW) which allows *Fermi* to slew towards the direction of the source, so that it can be observed with the LAT.

There are twelve thallium activated sodium iodide detectors (NaI(Tl), hereafter NaI) and two bismuth germanate detectors (BGO) in the GBM instrument. These detectors serve as a sensitive scintillation array covering both the softer photons by the NaIs (8 - 900 keV) and the harder photons by the BGOs (250 keV - 40 MeV). The arrangement of the NaI detectors allows GBM to locate GRBs in a real-time manner; and the two BGO detectors are placed on opposite sides of the spacecraft in order to cover all bursts coming from any direction in the sky. The wide spectral coverage of over 3 orders of magnitude is the key to detailed spectral analysis for the GRB prompt emission phase.

2.2. Detector selection

We apply the same detector selection criteria used in all official GBM GRB time-integrated spectral catalogs (Goldstein et al. 2012; Gruber et al. 2014; von Kienlin et al. 2014). The detectors with viewing angle larger than 60° or blocked by the LAT or solar panels are removed (Bissaldi et al. 2009; Goldstein et al. 2012; Gruber et al. 2014). For every spectrum, a maximum of three NaIs with one BGO are used in the analysis. If more than three NaIs satisfied these criteria, the NaIs with the smallest viewing angles are used in order to avoid binning bias towards the lower energies (Goldstein et al. 2012).

2.3. Data type selection

There are three different types of data generated by GBM. The first type is CTIME which provides coarse spectral resolution of 8 energy channels and fine temporal resolution of 0.256 s during the nominal time period, i.e., before the trigger and 600 s after the trigger; during the trigger period, the resolution is increased to 64 ms. The second type is CSPEC which provides coarse temporal resolution at nominal (4.096 s) and trigger (1.024 s) period, and high spectral resolution of 128 pseudo-logarithmically scaled energy channels. The third type is time-tagged event (TTE) data which stores individual photon events tagged with arrival time (resolution of 2 μs), photon energy channel (128 pseudo-logarithmic energy channels), and detector number (NaI 0 - 11 and BGO 0 - 1). TTE data were stored on board GBM in a recycling buffer. After 26 November 2012[2] this data type became continuous. When GBM is triggered, the spacecraft will transmit pre- and post-trigger TTE data (about 300 s in duration) to the ground as science data.

Since only TTE data from ~30 s pre-trigger until ~300 s post-trigger are available, for the bursts with evident precursor or emission longer than 300 s, CSPEC data (about 8,000 s in duration) are used. In this paper, CSPEC data are used for 15 GRBs, and for all other bursts TTE data are used.

2.4. Energy channel selection and background fitting

To account for the poor transparency for gamma rays of the silicone pad in front of the NaI crystal and of the Multi Layer Insulation (MLI) around the detectors (Bissaldi et al. 2009), the energy channels below 8 keV and the overflow channels above 900 keV are removed. A similar cutoff criterion is also used in the BGOs so that only energy channels between 250 keV and 40 MeV are used. An effective energy range from 8 keV to 40 MeV is used for the spectral analysis in this paper.

For each burst, a polynomial with order 2 - 4 is fit to every energy channel according to two user-defined background intervals, before and after the emission period. The background model is then interpolated across the emission period. This is done by varying the selected intervals and order of polynomial until the χ^2 statistics is minimised over all energy channels. The resulting background intervals are then loaded to all detectors, generating the background model to be used in the spectral analysis. The background intervals used in this catalog are identical to those used in Gruber et al. (2014).

2.5. Burst and spectrum selection

We first select all the bursts detected by GBM in the first 4 years (i.e., from 14 July 2008 to 13 July 2012), which is the same GRB subset as used in the 4-yr GBM GRB time-integrated spectral catalog (Gruber et al. 2014; von Kienlin et al. 2014). The GBM triggered on 954 GRBs in this period of time (one of them triggered GBM twice, see von Kienlin et al. 2014). Time-resolved spectral analysis requires bright bursts with sufficiently high signal-to-noise spectra. This bright subsample is selected by applying the following criteria: 10 keV - 1 MeV energy fluence $f > 4 \times 10^{-5}$ erg cm^{-2} and/or 10 keV - 1 MeV peak photon flux $F_p > 20$ ph s^{-1} cm^{-2} (in either 64, 256, or 1,024 ms binning

[1] http://gcn.gsfc.nasa.gov/gcn3_archive.html

[2] http://fermi.gsfc.nasa.gov/ssc/data/access/gbm/

timescales). These criteria are satisfied by 134 bursts out of the 954. Sixteen among them are of the short burst class.

In order to alleviate the problem that the spectra from the brightest bursts dominate the statistics, we further require each event to have at least 5 time bins in the light curves when binned with signal-to-noise ratio (S/N) = 30. This optimal S/N is found by iterating the binning process on characteristic bursts drawn from various fluence and peak-flux level, which does not significantly merge peaks and valleys in the light curves while providing the highest number of time bins. As a result, 81 bursts satisfy these criteria; among them there is only one short burst (GRB 120323A; GBM trigger #120323507). In total, 1,802 time-resolved time bins and spectra were obtained.

Four different empirical models are fit to each spectrum, resulting in a compilation of $1,802 \times 4 = 7,208$ spectral fits. Compared to the 4-yr GBM GRB time-integrated spectral catalog (Gruber et al. 2014; von Kienlin et al. 2014), the catalog presented here includes a lower number of GRBs (81 vs. 943), however, the number of high-resolution spectra is higher (1,491 BEST model fits, see Sect. 5, vs. 943).

3. Fitting models

Four different empirical models are fit to the spectra in our sample, namely, the Band function, a smoothly broken power law, a cutoff power law (aka. the Comptonized model), and a simple power law.

3.1. The Band function

The Band function (BAND) is a model in which a power law with high-energy exponential cutoff and a high-energy power law are joined together by a smooth transition. It is an empirical function proposed by Band et al. (1993), which fits most of the observed GRB spectra. Parametrized by the peak energy E_p (despite the fact that there may not be a peak in the νF_ν space when the high-energy photon index $\beta \geq -2$) in the observed νF_ν spectrum, the photon model of BAND is defined as

$$f_\mathrm{BAND}(E) = A \begin{cases} \left(\frac{E}{100\,\mathrm{keV}}\right)^\alpha \exp\left[-\frac{(\alpha+2)E}{E_\mathrm{p}}\right] : E < E_\mathrm{c}\,, \\ \left(\frac{E}{100\,\mathrm{keV}}\right)^\beta \exp\left(\beta-\alpha\right)\left(\frac{E_\mathrm{c}}{100\,\mathrm{keV}}\right)^{\alpha-\beta} : E \geq E_\mathrm{c}\,, \end{cases} \tag{1}$$

where

$$E_\mathrm{c} = \left(\frac{\alpha-\beta}{\alpha+2}\right) E_\mathrm{p}\,. \tag{2}$$

In Eqns. (1) and (2), A is the normalization factor at 100 keV in units of ph s^{-1} cm^{-2} keV^{-1}, α is the low-energy power-law photon index, β is the high-energy power-law photon index, E_p is the peak energy in the νF_ν space in units of keV, and E_c is the characteristic energy in units of keV.

We note that the *peak energy* E_p represents the position of the peak in the model curve in the νF_ν space, and the *characteristic energy* E_c represents the position where the low-energy power law with an exponential cutoff ends and the pure high-energy power law starts. These two energies should be distinguished from the *break energy* E_b which represents the position where the low-energy power law joins the high-energy power law. Therefore, we should not compare the Band function's E_p or E_c to the smoothly broken power law's E_b. In order to facilitate a fair comparison of the parameters, we compute the break energy where the two power laws join together for the Band function. The derivation is already given by Kaneko et al. (2006), here we only give the resulting equation:

$$E_\mathrm{b} = \left(\frac{\alpha-\beta}{\alpha+2}\right)\frac{E_\mathrm{p}}{2} + 4\,, \tag{3}$$

in units of keV. We note that the last constant term corresponds to 1/2 of the lower boundary of the detectors, 8 keV for the NaIs in our case. In the asymptotic limit, this term vanishes and therefore E_b is proportional to E_p.

3.2. The smoothly broken power law

The smoothly broken power law (SBPL) is a model of two power laws joined by a smooth transition. It was first parameterized by Ryde (1999) and then re-parameterized by Kaneko et al. (2006):

$$f_\mathrm{SBPL}(E) = A\left(\frac{E}{100\,\mathrm{keV}}\right)^b 10^{(a-a_\mathrm{piv})}\,, \tag{4}$$

where

$$\begin{cases} a = m\Delta\ln\left(\frac{e^q+e^{-q}}{2}\right), a_\mathrm{piv} = m\Delta\ln\left(\frac{e^{q_\mathrm{piv}}+e^{-q_\mathrm{piv}}}{2}\right), \\ m = \frac{\beta-\alpha}{2}, b = \frac{\alpha+\beta}{2}, \\ q = \frac{\log(E/E_\mathrm{b})}{2}, q_\mathrm{piv} = \frac{\log(100\,\mathrm{keV}/E_\mathrm{b})}{2}. \end{cases} \tag{5}$$

In Eqns. (4) and (5), A is the normalization factor at 100 keV in units of ph s^{-1} cm^{-2} keV^{-1}, α and β are the low- and high-energy power-law photon indices respectively, E_b is the break energy in units of keV, and Δ is the break scale. Unlike the Band function, the break scale is not coupled to the power-law indices, so SBPL is a 5-parameters model if we let Δ free to vary. We follow Kaneko et al. (2006), Goldstein et al. (2012), and Gruber et al. (2014) to fix $\Delta = 0.3$.

The peak energy of SBPL in the νF_ν space can be found at

$$E_\mathrm{p} = 10^x E_\mathrm{b}\,, x = \Delta\tanh^{-1}\left(\frac{\alpha+\beta+4}{\alpha-\beta}\right). \tag{6}$$

We note that Eqn. (6) is only valid for $\alpha > -2$ and $\beta < -2$.

3.3. The cutoff power law

The cutoff power law, or the so-called Comptonized model (COMP), is a power-law model with a high-energy exponential cutoff. We note that when $\beta \to -\infty$, BAND reduces to COMP, as E_c tends to infinity:

$$f_\mathrm{COMP}(E) = A\left(\frac{E}{100\,\mathrm{keV}}\right)^\alpha \exp\left[-\frac{(\alpha+2)E}{E_\mathrm{p}}\right], \tag{7}$$

where A is the normalization factor at 100 keV in units of ph s^{-1} cm^{-2} keV^{-1}, α is the power-law photon index, and E_p is the peak energy in the νF_ν space in units of keV.

In the BATSE GRB spectral catalogs (Pendleton et al. 1994; Preece et al. 2000; Kaneko et al. 2006; Goldstein et al. 2013), the low-energy spectral index α of different models cannot be directly compared because they are asymptotic values but not actual slopes. They used an effective α, α_eff, computed at 25 keV (the BATSE detector lower limit). In the GBM GRB time-integrated spectral catalogs (Goldstein et al. 2012; Gruber et al. 2014), the fit values of α are directly adopted in their further analysis. Since GBM has a detector lower limit at 8 keV, the deviation from the asymptotic value (Eqn. C2, Kaneko et al. 2006) is negligible (Figs. 1 and 2), and here we follow the GBM GRB time-integrated spectral catalogs to use the best-fit values of α directly.

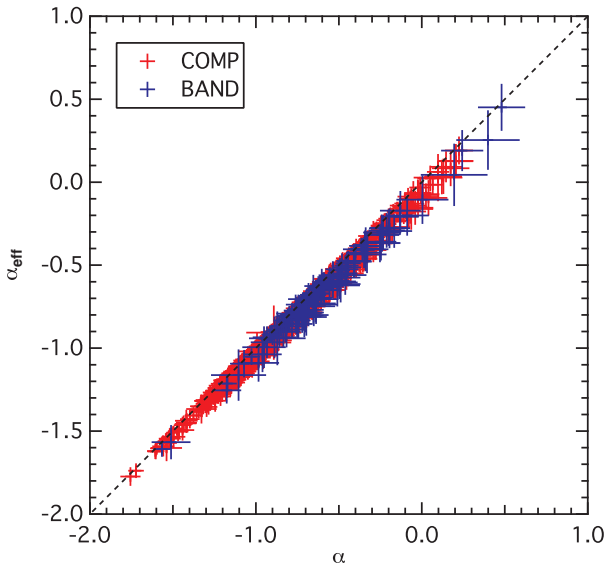

Fig. 1. Comparison between $\alpha_{\rm eff}$ evaluated at 8 keV and α. Blue and red crosses represent BAND and COMP, respectively. Diagonal dashed line shows $y = x$.

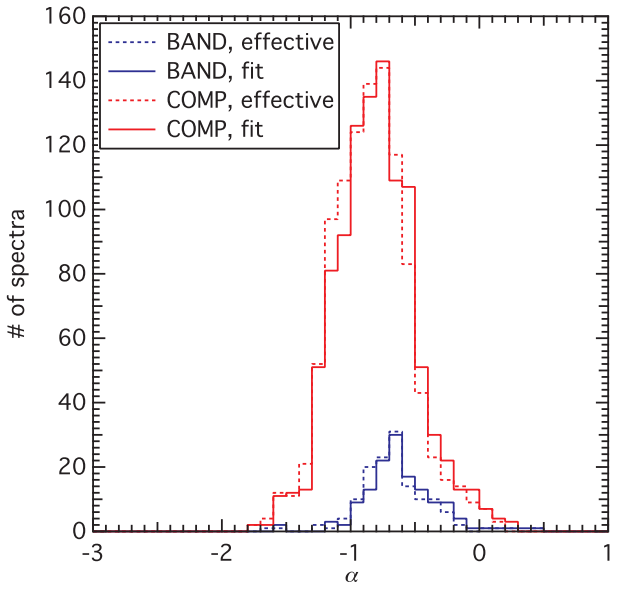

Fig. 2. Histogram comparison of $\alpha_{\rm eff}$ evaluated at 8 keV and α. Blue and red histograms represent BAND and COMP, respectively. Solid lines are fit results, and dotted lines are effective α.

3.4. The power law

The power law (PL) is defined as

$$f_{\rm PL}(E) = A\left(\frac{E}{100\ {\rm keV}}\right)^{\alpha}, \quad (8)$$

where A is the normalization factor at 100 keV in units of ph s^{-1} cm^{-2} keV^{-1}, and α is the power-law photon index.

3.5. Conditions to have a peak in the νF_ν space

For all the aforementioned mathematical functions, the resulting spectrum has a peak in νF_ν space if and only if $\alpha > -2$ and $\beta < -2$. Since the Band function presumes $\alpha > \beta$, for the BAND fits with $\alpha \leq -2$, the spectrum decreases monotonically, and for those with $\beta \geq -2$, the spectrum increases monotonically. For the SBPL fits with $\alpha \leq -2$ or $\beta \geq -2$, $E_{\rm p}$ is not calculated because Eqn. (6) is invalid. Similarly, for the COMP fits with $\alpha \leq -2$, $E_{\rm p}$ is just a break and the spectrum decreases monotonically, and obviously not there for the PL model.

4. Spectral analysis method

The light curves are binned according to the procedure described in Sect. 2, resulting in a total of 1,802 time bins and $1,802 \times 4 = 7,208$ spectra. Time-resolved spectral analysis is performed using the official GBM spectral analysis software RMFIT v4.3BA[3], with effective area corrections applied to each pairs of NaI and BGO detectors. RMFIT employs a modified forward-folding technique based on the Levenberg-Marquardt algorithm. During the fitting process, the fitting models discussed in Sect. 3 are converted into counts. These counts are then compared to the observed counts and RMFIT iterates itself until a best fit is found according to the chosen statistics for minimization.

In order to fold the model spectra into count space in the forward-folding process, detector response matrices (DRMs) are generated using the GBM response matrices v2.0. These DRMs contain information about the angular dependence of the detector efficiency, effective area of the detectors, partial energy deposition, energy dispersion, nonlinearity in the detectors, and atmospheric and spacecraft scattering of photons into the detectors. Therefore, they are functions of photon energies, angular dependence between spacecraft and the source, and angle between spacecraft orientation relative to the Earth. In order to account for the orientation change of the detectors relative to the burst direction because of the slew of the spacecraft, DRMs are generated for every 2°on the sky and grouped into RSP2 files for each burst. This means each DRM is weighted by the counts in the detectors for every 2°of spacecraft slew.

The chosen statistics for minimization in the fitting process is the so-called Castor C-Statistics (CSTAT). This is a modified statistical function based on the original Cash statistics (Cash 1979). Since the background is Poissonian, the net count statistics is non-Gaussian, CSTAT is preferable over the traditional χ^2 statistics. However, CSTAT does not provide a goodness-of-fit measure as χ^2, because there is no standard probability distribution for the likelihood of CSTAT. As a result, test statistics must be calculated and compared to the resulting CSTAT values by simulating the fitting model a large number of times, which allows us to reject a model up to a certain confidence level. Theoretically, this should be done for each burst separately, but due to the infeasibility of generating large number of simulated spectra for all bursts, we adopt the values given in Gruber et al. (2014) for models (8.58 for PL vs. COMP, and 11.83 for COMP vs. BAND or SBPL) with various numbers of free parameters. These values, what we call the critical ΔCSTAT or $\Delta{\rm CSTAT}_{\rm crit}$, are listed in Table 1 of Gruber et al. (2014).

5. Results

5.1. General statistics

We define the BEST model sample (see Goldstein et al. 2012; Gruber et al. 2014, for example) by the following criteria: For

[3] The public version of the RMFIT software package is available at `http://fermi.gsfc.nasa.gov/ssc/data/analysis/rmfit/`

Table 2. The mean and median values of the best-fit parameters for the BEST sample. The mean values are computed by simply taking the averages of each parameter, and their errors are given by the standard deviations. The errors of the medians are given by the 1σ errors of each parameter by constructing the CDFs. ALL indicates parameter properties after combining the distributions (i.e., BAND + SBPL + COMP + PL). [a]Due to the very different parameter behavior of PL, we give also the ALL without PL values which better reflect the statistics of the overall distribution of more complex models. [b]The distributions of $E_{\rm p}$ and $E_{\rm b}$ are observed to be approximately log-normal, therefore we fit a log-normal distribution to each of the $E_{\rm p}$ and $E_{\rm b}$ populations, and reported the peak positions and 1σ widths (in base-10 logarithmic of keV).

Parameter	Model	Mean	Median	Parameter	Model	Peak[b]
α	BAND	-0.603 ± 0.300	$-0.639^{+0.298}_{-0.205}$	$\log_{10}(E_{\rm p}/{\rm keV})$	BAND	$\log_{10}(224.98) \pm 0.27$
	SBPL	-0.763 ± 0.362	$-0.741^{+0.241}_{-0.396}$		SBPL	$\log_{10}(165.79) \pm 0.40$
	COMP	-0.802 ± 0.312	$-0.810^{+0.287}_{-0.297}$		COMP	$\log_{10}(274.59) \pm 0.26$
	PL	-1.674 ± 0.169	$-1.648^{+0.147}_{-0.216}$		-	-
	ALL	-0.867 ± 0.413	$-0.823^{+0.304}_{-0.413}$		ALL	$\log_{10}(263.41) \pm 0.28$
	ALL w/o PL[a]	-0.776 ± 0.323	$-0.773^{+0.272}_{-0.320}$		-	-
β	BAND	-2.214 ± 0.272	$-2.183^{+0.224}_{-0.311}$	$\log_{10}(E_{\rm b}/{\rm keV})$	BAND	$\log_{10}(129.71) \pm 0.22$
	SBPL	-2.412 ± 0.573	$-2.272^{+0.317}_{-0.573}$		SBPL	$\log_{10}(103.50) \pm 0.36$
	ALL	-2.323 ± 0.472	$-2.217^{+0.262}_{-0.412}$		ALL	$\log_{10}(122.27) \pm 0.29$

Table 1. Best-fit statistics for the BEST sample. For each sample the number of spectra N and the percentage of the fraction of the spectra are given for each fitting model. ALL indicates parameter properties after combining the distributions (i.e., BAND + SBPL + COMP + PL).

Model	N	percentage
BAND	139	9.3%
SBPL	170	11.4%
COMP	1,030	69.1%
PL	152	10.2%
ALL	1,491	-

each parameter Q of a model, the relative error $\sigma_Q/Q \leq 0.4$ except for all power-law indices; for models that have two power-law indices, the low-energy index error has to satisfy $\sigma_\alpha \leq 0.4$, and the high-energy power-law index has to satisfy $\sigma_\beta \leq 1.0$; for the single power law, the index error criterion is the same as α's; and the model has to have the lowest CSTAT after correcting the value by $\Delta{\rm CSTAT}_{\rm crit}$ (see Sect. 4) comparing to other spectral model fits[4]. As a results, we are able to extract 1,491 BEST model fits out of the 1,802 spectra. The fit results of the BEST model of all spectra for all GRBs[5] are listed in Table A.1.

We note that BAND's $E_{\rm b}$ and SBPL's $E_{\rm p}$ are computed instead of fit parameters. Therefore, we compute $\sigma_{E_{\rm b}}$ of BAND and $\sigma_{E_{\rm p}}$ of SBPL by performing Monte-Carlo simulations using the errors of the best-fitting model parameters. We randomly draw new values of the model parameters from a uniform probability function sharing the same 1σ width. This process is repeated to generate 10,000 realizations, and a cumulative distribution function (CDF) is constructed. The errors are then obtained by taking the 1σ width of the resulting CDFs. This procedure generates the most conservative error values because the uniform probability function has the largest standard deviation.

The fit statistics for the BEST sample are listed in Table 1. It can be seen that COMP has the largest fraction of BEST fits (69.1%), SBPL and PL have 11.4% and 10.2% respectively, and BAND gives the lowest fraction, only 9.3%. However, we note that these resulting statistics do not necessarily imply that the Comptonized model is generally favored over the Band function. Kaneko et al. (2006) and Goldstein et al. (2012) showed that there appeared to be a strong correlation between the S/N and the complexity of the BEST model. Therefore, we cannot rule out the possibility that this observed preference is due to poor count statistics at the high energies.

The mean and median values of the parameter distributions for the BEST sample are shown in Table 2. The "Mean" columns show the average value of each parameter distribution and their errors are given by the standard deviations. The "Median" columns show the median and 1σ errors of each parameter by constructing the CDFs. For the approximately log-normally distributed $E_{\rm p}$ and $E_{\rm b}$ populations, log-normal distributions are fit to each population and the peak and 1σ widths in base-10 logarithmic space are reported.

In Fig. 3 we show the distributions of the BEST sample best-fit parameters. The top left panel shows the BEST distributions of the low-energy power-law index α. It can be seen that there are two peaks in the ALL population. The peak at $\alpha \approx -0.7$, excluding those values from PL, is dominated by the COMP model. It can be seen that the population of SBPL's α is slightly softer than that of the BAND's and COMP's and also shows a larger spread. As discussed above, this effect is not due to the detector's lower limit because the histogram's bin width is wider than the deviation from the asymptotic limit. The α of PL fits are significantly softer than that of other models, with no $\alpha > -1.3$. The distinct behavior of PL to the other fit functions is evident.

[4] In the first two GBM GRB time-integrated spectral catalogs, there was a definition of the GOOD sample. We do not include such a sample here in this catalog, since the GOOD criteria they used do not guarantee good fits. This is because the GOOD sample does not involve a goodness-of-fit criterion. We discuss this effect in Appendix D.

[5] In this paper, the names of the bursts are given according to the *Fermi* GBM trigger designation that is assigned for each new trigger detected. The first 6 digits indicate the year, month, and day of the month, and the last 3 digits indicate the fraction of the day. For more details, please see the online *Fermi* GBM burst catalog at `http://heasarc.gsfc.nasa.gov/W3Browse/fermi/fermigbrst.html`

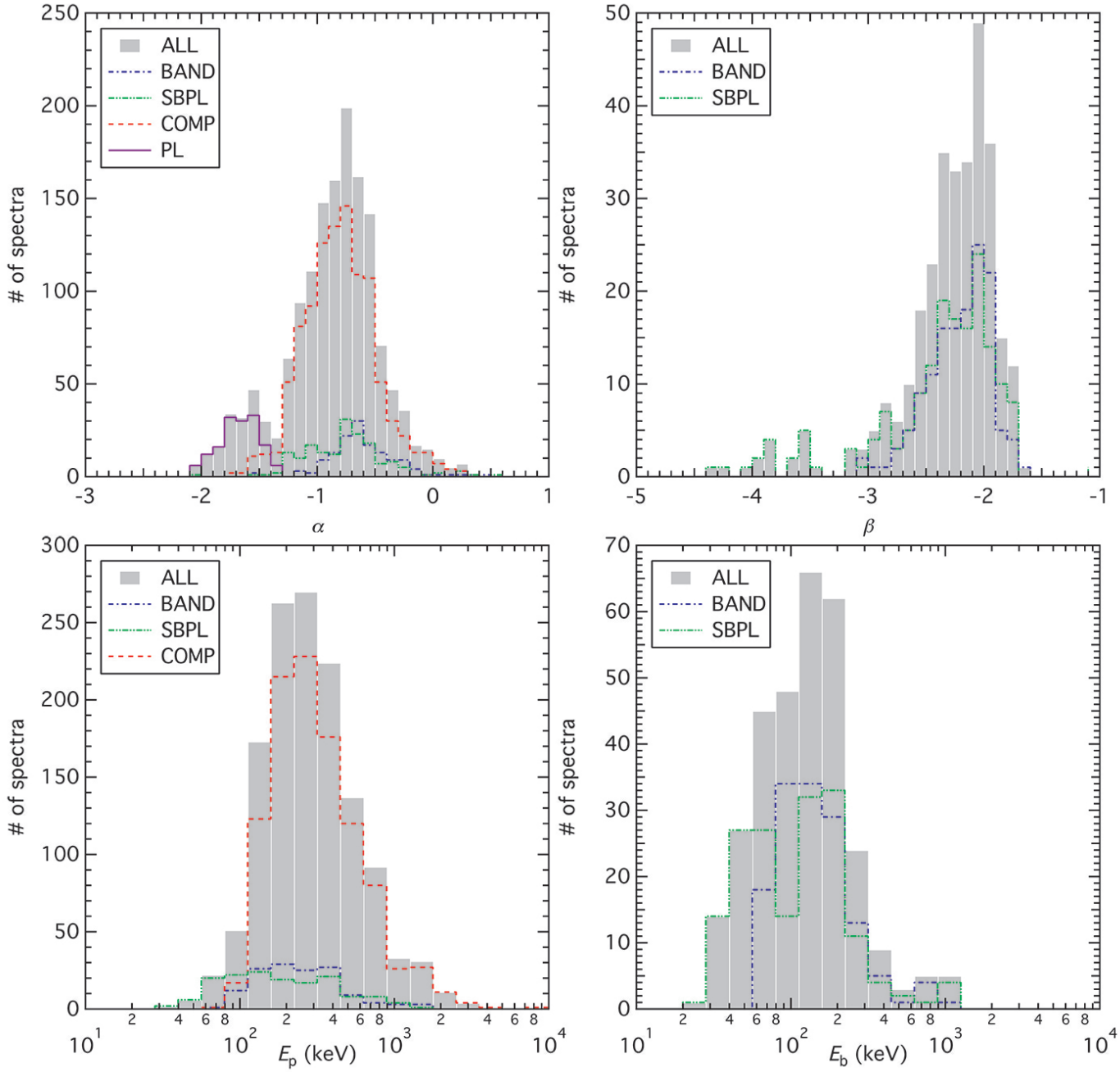

Fig. 3. The distributions of the BEST sample spectral parameters. The BAND parameter populations are shown by the blue dash-dotted lines, the SBPL by the green dash-double dotted lines, the COMP by the red dashed lines, and the PL by the purple solid lines. The overall populations (ALL) are shown by the grey solid histograms. Top left panel: distributions of α. Top right panel: distributions of β. Bottom left panel: distributions of $E_{\rm p}$. Bottom right panel: distributions of $E_{\rm b}$.

The top right panel shows the BEST distributions of the high-energy power-law index β. It can be seen that the BAND's β becomes more concentrated between -3.1 and -1.6, while the SBPL's β extend to much steeper values of about -4.4.[6] The peak of the populations is at $\beta \approx -2.1$. As a result, 21% of the overall population of $\beta \geq -2$ (no peak in the νF_ν space).

The bottom left panel shows the BEST distributions for the νF_ν peak energy $E_{\rm p}$. It can be seen that the $E_{\rm p}$ population of COMP dominates the overall distribution, and that the COMP population extends to higher energies (up to about 5 MeV) than the BAND and SBPL populations, which instead extend to lower energies (down to about 20 keV). We do not find any spectrum with very large $E_{\rm p}$, with only 4.8% of the overall population of $E_{\rm p} \geq 1$ MeV.

The bottom right panel shows the distributions for the break energy $E_{\rm b}$. It can be seen that the $E_{\rm b}$ population of BAND has a clear peak at $E_{\rm b} \approx 130$ keV, while the $E_{\rm b}$ population of SBPL has a broad distribution (from 40 keV to 300 keV).

These general statistics suggests that when performing spectral analysis of GRBs, one should not assume a Band spectrum (e.g., Giblin et al. 1999; González et al. 2012; Sacahui

[6] BAND with $\beta = -4.4$ effectively mimics COMP, while SBPL with $\beta = -4.4$ does not. This is because the mathematical definitions of the curvatures of SBPL and BAND are different.

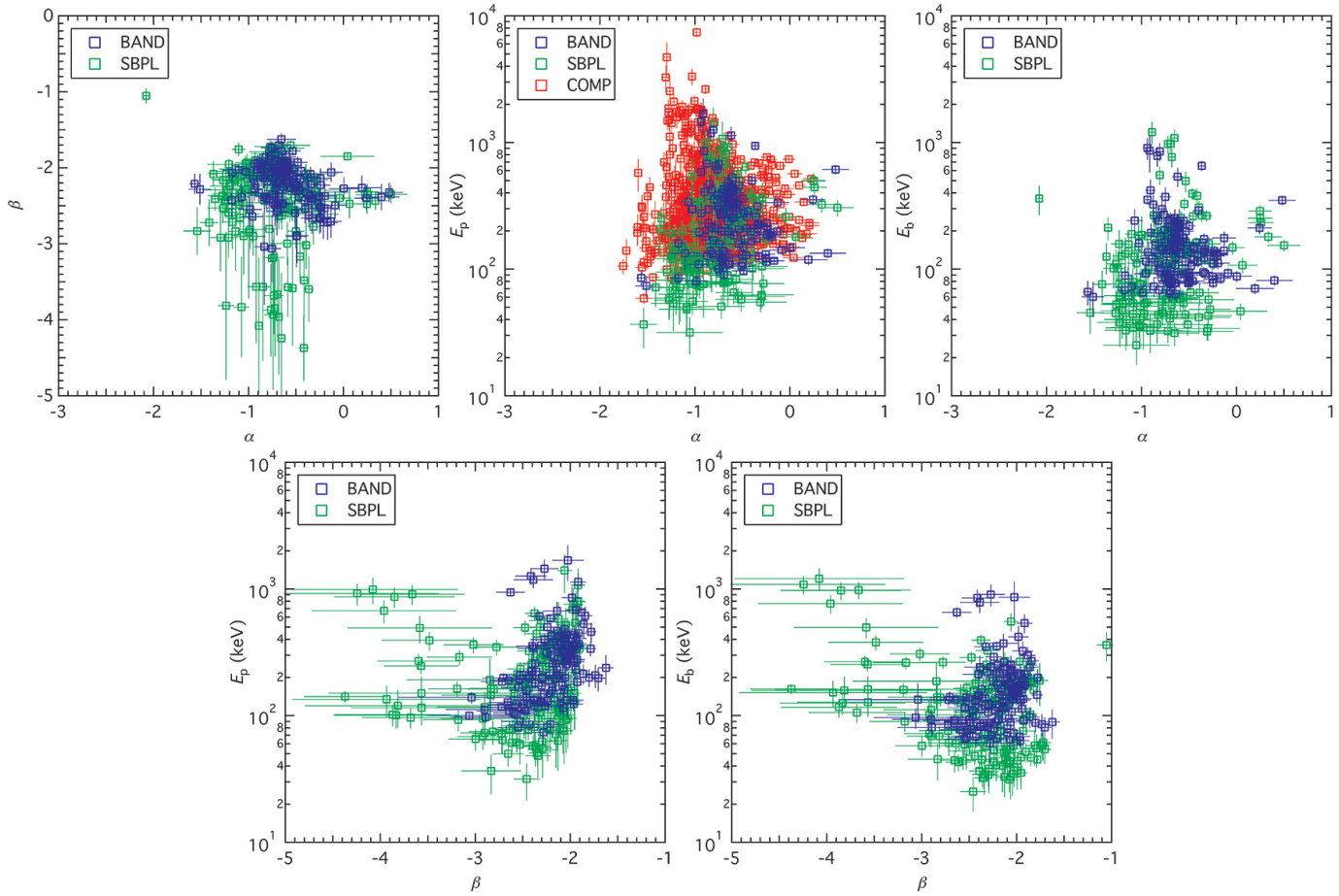

Fig. 4. The scatter plots between the BEST sample spectral parameters. The blue, red, and green data points represent BAND, COMP, and SBPL fits, respectively. Top left panel: β against α. Top middle panel: E_p against α. Top right panel: E_b against α. Bottom left panel: E_p against β. Bottom right panel: E_b against β.

et al. 2013). Instead, one should always try different fit functions and compare the fit statistics to find the best description to the data. Similar statistical behaviors are also observed in the time-integrated spectral catalogs (Goldstein et al. 2012; Gruber et al. 2014).

5.2. The parameter-parameter scatter plots

Figure 4 shows the scatter plots between the best-fit parameters of the BEST sample. The top left panel shows the plot of β against α. Trends can neither be found between α and β for individual models nor the overall population as a whole. It can be seen that SBPL's β population extend to steeper values and have larger error bars in the same range of values of α. The larger error for steeper β shows that the SBPL tends to mimic a COMP spectrum, in which β is poorly constrained due to less photon statistics at the higher energies.

The top middle panel shows the plot of E_p against α. Trends can neither be found between α and E_p for individual models nor the overall population as a whole. It can be seen that while the data points seem to occupy the same region, SBPL's E_p extends to lower energies and COMP's E_p extends to higher energies, for similar range of values for α.

The top right panel shows the plot of E_b against α. Similar to the plot of E_p, no trends can be found for E_b, and SBPL's E_b extends to lower energies for similar range of values of α. This is because, according to Eqns. (3) and (6), E_p is proportional to E_b.

The bottom left panel shows the plot of E_p against β, and the bottom right panel shows the plot of E_b against β. Since E_p is proportional to E_b, the two plots show similar behaviors. A slight trend may exist between E_p against β in the population of BAND: steeper β tends to have lower E_p. However, this trend is not seen in the population of SBPL.

These plots show that the SBPL produces larger uncertainties for steeper β, and has difficulties to constrain the high-energy power-law behavior in comparison to the Band function.

5.3. The parameter-uncertainty scatter plots

Figure 5 shows the scatter plots between the best-fit parameters and uncertainties of the parameters of the BEST sample. The top left panel shows the plot of σ_α against α. It is seen that the SBPL gives the most scatter and large errors (extend to almost $\sigma_\alpha = 0.4$), while other models give relatively small errors of $\sigma_\alpha < 0.2$. The PL gives the smallest $\sigma_\alpha \leq 0.1$. A clear trend for σ_α can be seen: σ_α tends to be larger when α increases (i.e., becomes harder).

The top middle panel shows the plot of σ_β against β. A clear trend is observed that σ_β becomes larger when β decreases (i.e., becomes softer/steeper). The trend is indeed expected because the high-energy power-law slope becomes less constrained when the BAND or SBPL mimics a COMP model, i.e., when there are

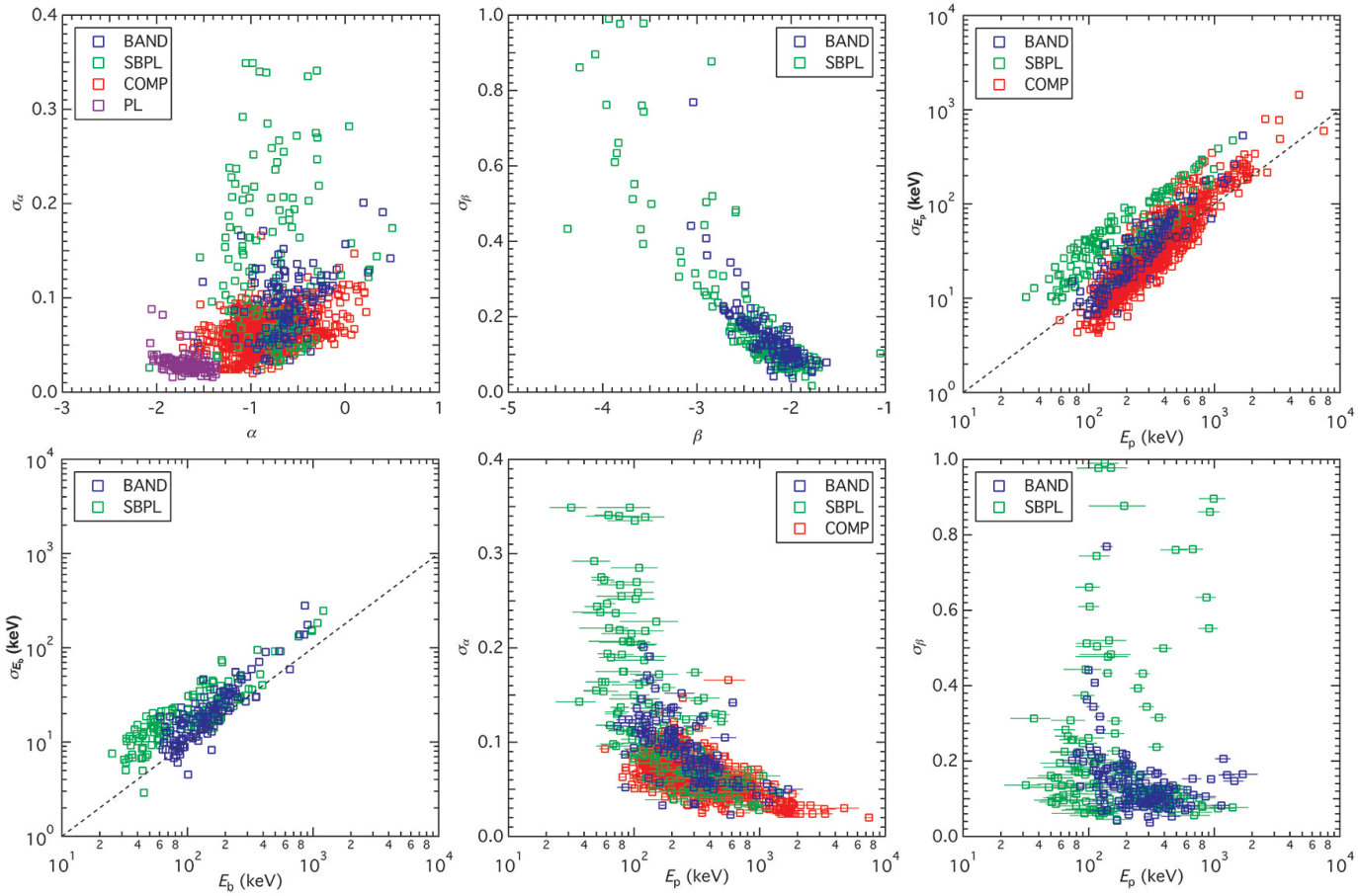

Fig. 5. The scatter plots between the BEST sample spectral parameters and uncertainties. The blue, red, green, and purple data points represent BAND, COMP, SBPL, and PL fits, respectively. The dashed lines show $y = 0.1x$. Top left panel: σ_α against α. Top middle panel: σ_β against β. Top right panel: σ_{E_p} against E_p. Bottom left panel: σ_{E_b} against E_b. Bottom middle panel: σ_α against E_p. Bottom right panel: σ_β against E_p.

less photon statistics at the high energies which leads to a cutoff behavior.

The top right panel shows the plot of σ_{E_p} against E_p. It is observed that σ_{E_p} of SBPL is systematically larger than that of BAND and COMP for the same value of E_p. The values of σ_{E_p} for BAND and COMP also tend to lie above the dashed line, implying that σ_{E_p} becomes larger when E_p increases. We note that $E \approx 900$ keV is the upper energy boundary of the NaIs, so that there are only data contributed by the BGOs beyond this limit, providing less photon statistics and thus increases the uncertainty in determining the spectral peak position.

The bottom left panel shows the plot of σ_{E_b} against E_b. Comparing to the peak energies, σ_{E_b} of the break energies E_b have similar trends for both the BAND and SBPL fits. The errors lie systematically above the dashed line for both models.

It is also of interest to investigate how the position of the spectral peak affects the uncertainties in the spectral slopes. The bottom middle panel shows the plot of σ_α against E_p. A clear trend is observed that the low-energy power-law slope becomes more uncertain when the spectrum peaks at lower energies. This is because the low-energy spectral slope is determined by the photon statistics below the peak energy. When the peak energy is smaller, there are relatively fewer data points to constrain the value of the low-energy power-law slope. It is also observed that for the same value of E_p, σ_α tends to be larger for the SBPL fits than that for the BAND or COMP fits.

The bottom right panel shows the plot of σ_β against E_p. A trend is observed that higher values of E_p tend to produce smaller σ_β, which is weaker in comparison to the plot of σ_α against E_p. This shows that the high-energy power-law slope is not as strongly coupled to the peak position as the low-energy power-law slope.

These plots again show that the smoothly broken power-law model produces the highest degree of uncertainties in the best-fit parameters. This is not limited in the high-energy power-law index β, as shown in Fig. 4. Figure 5 shows that SBPL's peak position significantly affects the uncertainties of both power-law indices, more so than the other models. The slight offsets of the best-fit parameters from different fit functions are expected because they have intrinsically different parametrical formulae. In general, we observe good consistency in the parameter space occupation, indicating that the minima in the parameter spaces are well defined and our results are statistically reliable.

5.4. E_p evolution

Time-resolved spectral analysis of GRBs has shown that there are two different kinds of E_p evolutionary trends (e.g., Ford et al. 1995), namely the intensity tracking and the hard-to-soft behavior. Intensity tracking bursts show evidence that the values of E_p follow similar trends of the intensity (either photon flux or energy flux) in their light curves. Hard-to-soft bursts show evidence that E_p decays (in general) monotonically with time.

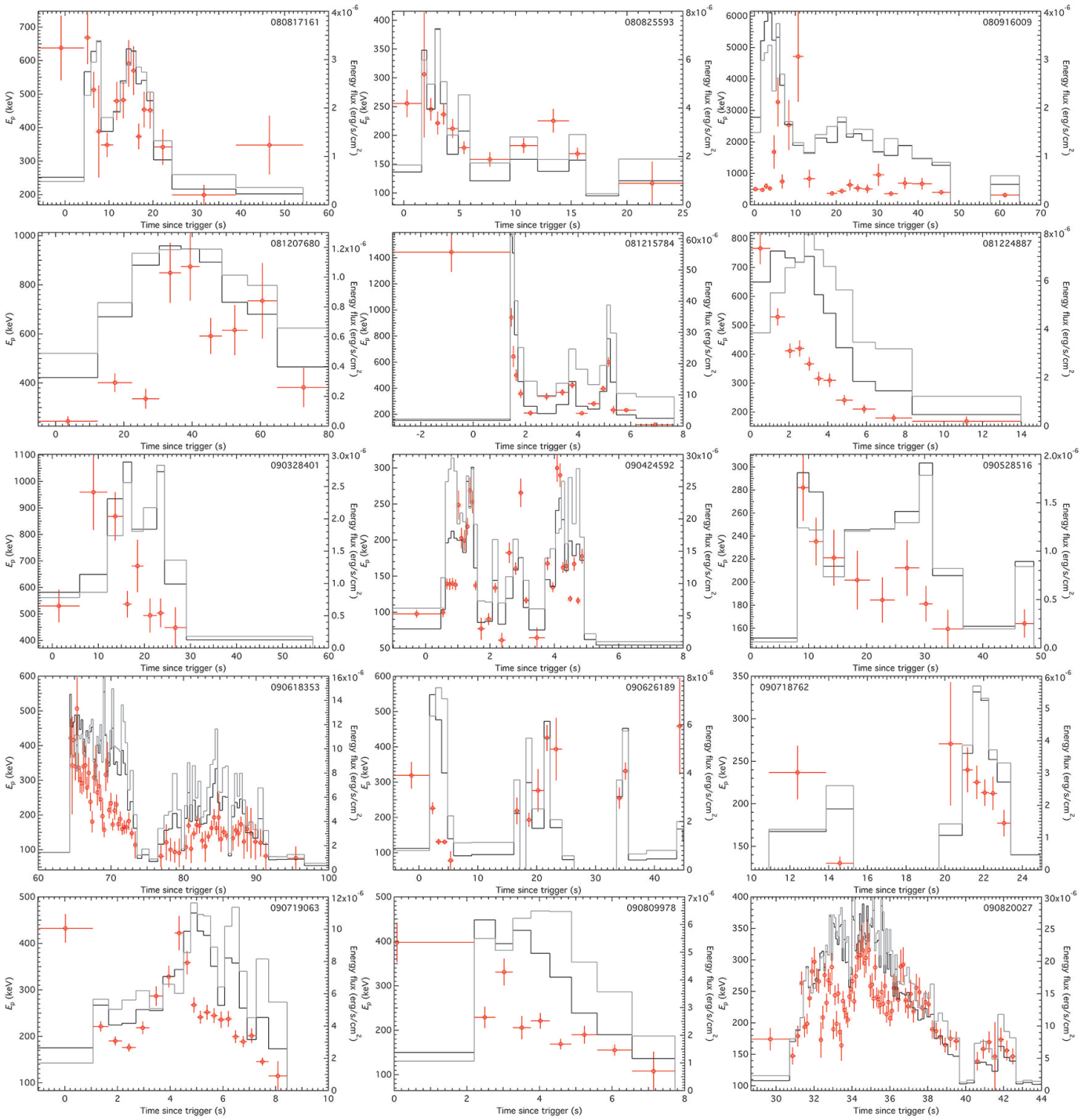

Fig. 6. E_p evolutions (red data points, left axis) of individual burst with the 10 keV - 1 MeV energy flux (black histograms, right axis) and the 10 keV - 1 MeV photon flux (grey histograms, arbitrary units) overlaid.

We compute the Spearman's Rank Correlation Coefficient ρ (Spearman 1904) between E_p and (1) the 1 keV - 1 MeV photon flux, ρ_{ph}, (2) the 1 keV - 1 MeV energy flux, ρ_{en}, and (3) the time, ρ_t. A positive value indicates a positive correlation, a negative value indicates a negative correlation, and a value of zero means no correlation. The process is repeated for different confidence levels of 90%, 95%, and 99%. We note that the confidence levels are *not* the probabilities to find ρ within the confidence intervals. They are the *ratios* of finding the real ρ within the confidence intervals to the total number of repeated analysis. For example, the 99% confidence interval of ρ denotes that if the spectral analysis is repeated a large number of times, we will find on average, in 99 out of 100 times, that the real ρ lies within the 99% confidence interval. However, we will never know if we have picked the lucky ones, because we have no way to know the actual value of ρ. Therefore, the confidence level of a confidence interval provides a sense of how often a correlation is expected to be found.

First, we distinguish the E_p evolutionary trends by machine. For each confidence level of the ρ's, we check the following log-

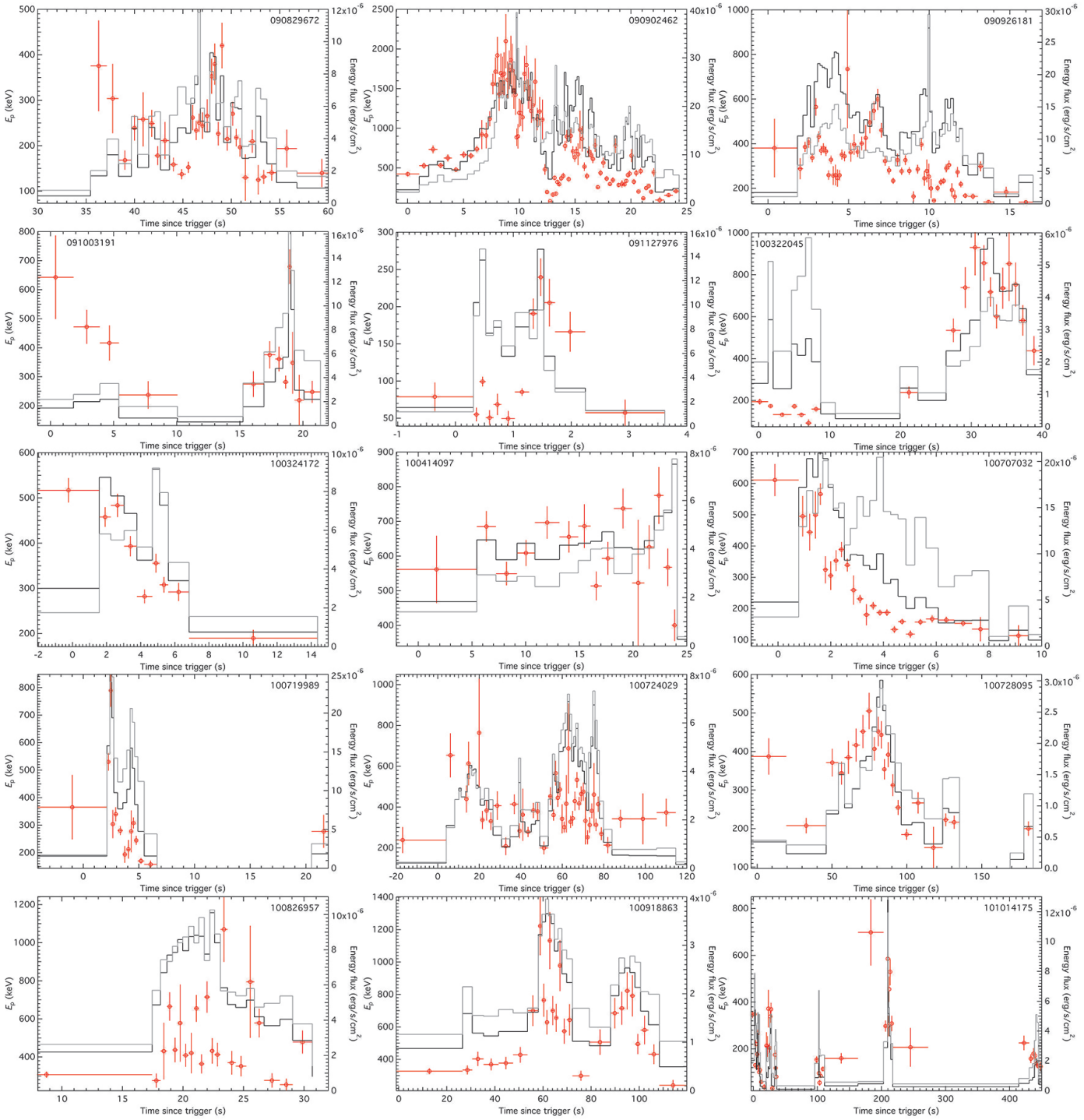

Fig. 7. Same as Fig. 6.

ical criteria:[7] (1) if $\rho_{\rm ph}$ *or* $\rho_{\rm en} > 0.5$, *and* it is not consistent with zero within the confidence interval; *and* $\rho_{\rm t} \geq -0.5$ *or* it is consistent with zero within the confidence interval, then we define the trend as intensity tracking ("in.track."); (2) if $\rho_{\rm ph} \leq 0.5$ *and* $\rho_{\rm en} \leq 0.5$, *or* they are consistent with zero within their confidence intervals; *and* $\rho_{\rm t} < -0.5$ and it is not consistent with zero within the confidence interval, then we define the trend as hard-to-soft ("h.t.s."); (3) everything else are defined as undetermined ("undeter."). The values and confidence intervals of the ρ's, and the machine-decided kinds of trends are listed in Cols. (3) - (14) of Table B.1.

Then, we distinguish the $E_{\rm p}$ evolutionary trends by human eyes (Col. 15 of Table B.1). We plot the $E_{\rm p}$ evolutions (red data points, left axis) in Figs. 6 - 9, with the 10 keV - 1 MeV energy flux (black histograms, right axis) and the 10 keV - 1 MeV photon flux (grey histograms, arbitrary units) light curves overlaid. We note that we only plot and compare the 57 bursts with $E_{\rm p}$ in at least 6 time bins or more. We find that the machine-based

[7] We iterated the machine-based decision process for many different logical criteria, and found that the stated criteria provide a fairly robust determination of the trends comparing to human decisions. See main text and Table B.1.

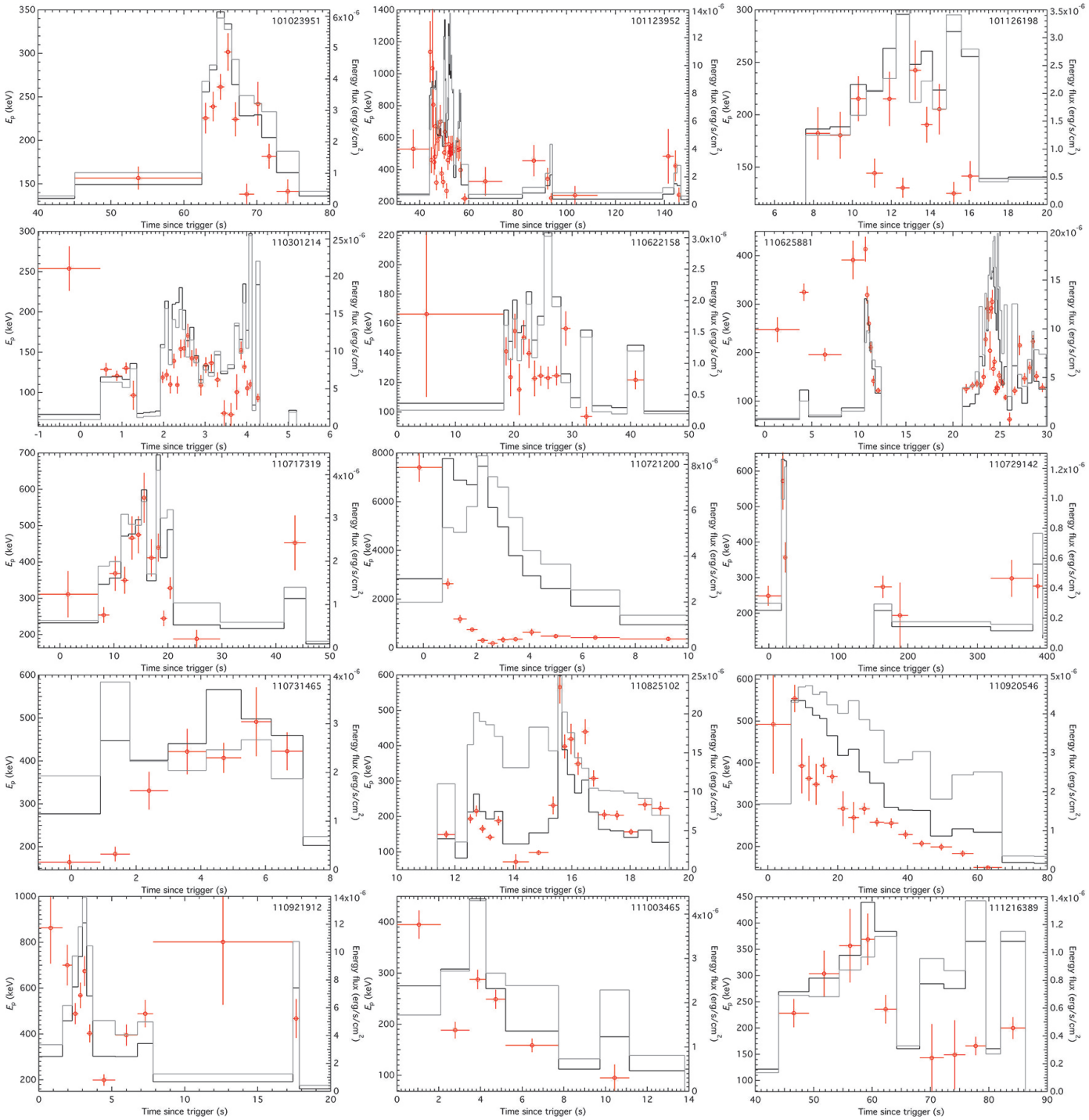

Fig. 8. Same as Fig. 6.

decision process is quite robust, in that only 2 bursts (3.5%) are mis-attributed to the opposite kind ("h.t.s." vs. "in.track."), namely GRB 100719989 (Fig. 7) and GRB 111216389 (Fig. 8). The brightness of the first peak relative to the second peak of GRB 100719989 mimics a trend that E_p is decaying with time. In contrast, a human would identify its intensity tracking nature by noticing the low E_p in the first time bin and the small rise of E_p values during the second peak. The case of GRB 111216389 is similar in that the relatively higher value but intensity tracking E_p during the first peak to the second peak contributed to a small excess in ρ_t.

There are 12 GRBs (21%) which show a mix of the two kinds of trends. Some of these bursts are identified by the computer as either one of the two kinds, or as undetermined. Two of them are especially worth mentioning: GRB 090618353 (Fig. 6) and GRB 091003191 (Fig. 7). They both show an initial hard-to-soft evolution followed by a later intensity tracking behavior, where the computer labeled them as undetermined. The other 10 bursts show a general hard-to-soft decay of E_p where the values in between seem to follow the intensity profile. Lu et al. (2012) have shown that intrinsic hard-to-soft evolutions of distinct pulses can overlap and produce such a "h.t.s.+in.track." be-

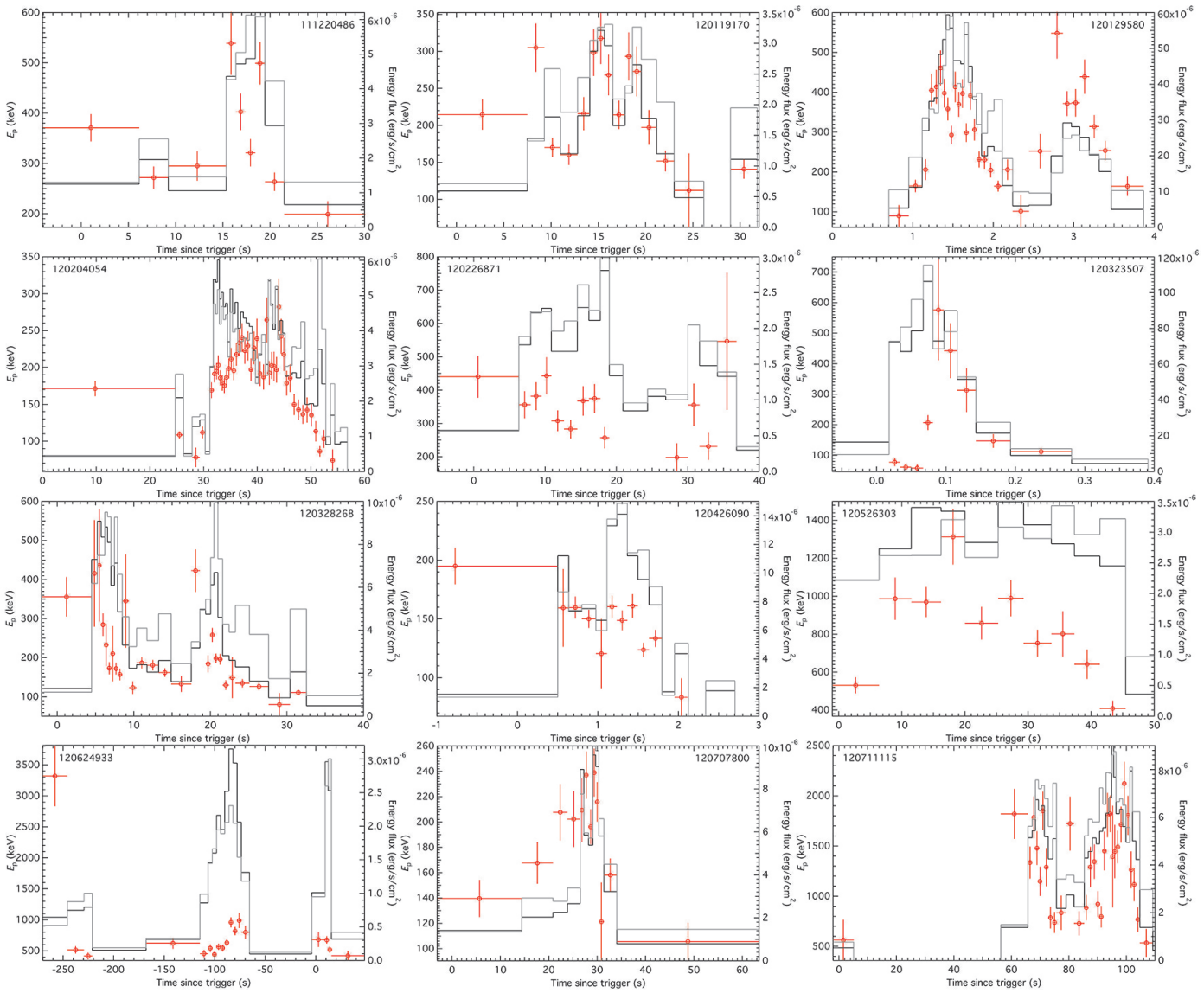

Fig. 9. Same as Fig. 6.

havior. They claimed that both "h.t.s." and "in.track." behavior could be intrinsic to a burst or a pulse, which is consistent with our findings that many single pulsed bursts show pure intensity tracking behavior. We also find that the intensity tracking behavior of E_p with the energy flux is more prominent than that with the photon flux in all of the intensity tracking bursts.

A few more bursts are worth of mentioning. GRB 100707032 (Fig. 7), GRB 110721200, and GRB 110920546 (both Fig. 8) are single pulsed, fast-rise-exponential-decay (FRED) bursts. All of them show pure hard-to-soft behavior. Since the E_p evolutions and intensity profiles of these FRED bursts are very similar, ρ_{en} and $\rho_{ph} \approx -\rho_t \gtrsim 0.5$, thus the computer cannot determine their evolutionary trends.

In short, we emphasize that even though the process of distinguishing "h.t.s." and "in.track." bursts can be done automatically, the existence of "h.t.s.+in.track." and FRED bursts can be ambiguous to computers. We strongly encourage checking by human eyes after any automated detection process of E_p evolutionary trends.

5.5. Search for blackbody emission

Many studies have reported evidence for thermal components with $kT \sim 10$ keV in various GRBs (e.g., Mészáros et al. 2002; Ryde 2005; Guiriec et al. 2011; Axelsson et al. 2012; Guiriec et al. 2013; Burgess et al. 2014a,b; Guiriec et al. 2015a,b; Pe'er et al. 2015; Iyyani et al. 2015). Therefore, adding a blackbody component (i.e., a Planck function) to the fit function is a natural way to explore the data in this time-resolved catalog. The blackbody model (BB) is defined as:

$$f_{\rm BB}(E) = A \left[\frac{(E/1\ {\rm keV})^2}{\exp(E/kT) - 1} \right], \quad (9)$$

where A is the normalization factor at 1 keV and kT is the blackbody temperature in units of keV.

We find that except for the single power law, in most of the cases ($\gtrsim 90\%$) it is not possible to obtain converged fits when the blackbody is added to other fitting models (i.e., BAND, COMP, and SBPL). However, we note that the ability of a model to fit the data depends also on the count statistics. Abdo et al. (2009) performed a joint GBM-LAT analysis to GRB 090902B (GBM trigger #090902462, see discussion below) that they can fit a BAND

Table 3. The 4 bursts with N number of PLBB-identified spectra, and their respective critical ΔCSTAT values.

GRB name	N	$\Delta\mathrm{CSTAT}_{\mathrm{crit}}$
090618353	2	19.55
090902462	32	32.75
110622158	2	12.32
110920546	6	148.37

plus PL model to the burst, which is expected because there are more statistics to constrain more parameters. Our results in this paper indicates the difficulty of fitting a model with 5 or more parameters to the GBM data alone using the S/N = 30 criterion.

The power law plus blackbody model (PLBB) is defined as

$$f_{\mathrm{PLBB}}(E) = A_{\mathrm{PL}}\left(\frac{E}{100\ \mathrm{keV}}\right)^{\alpha} + A_{\mathrm{BB}}\left[\frac{(E/1\ \mathrm{keV})^2}{\exp(E/kT)-1}\right], \qquad (10)$$

where A_{PL} and A_{BB} are the normalization factors for the power-law and blackbody component, respectively.

Since PLBB is a not a nested model, it is necessary to perform $\Delta\mathrm{CSTAT}_{\mathrm{crit}}$ simulations for every pair of competing models, instead of just counting the number of free parameters (see Gruber et al. 2014). However, doing a large number of simulations for every spectrum is obviously impractical. We therefore first identify plausibly significant PLBB spectra by using the same $\Delta\mathrm{CSTAT}_{\mathrm{crit}}$ criteria for a 4-parameters model. Then we generate 10,000 realisations for the identified time intervals for every burst in this subsample and obtain the $\Delta\mathrm{CSTAT}_{\mathrm{crit}}$ for each burst. Then we compare the ΔCSTAT between the BEST model and the PLBB model for each spectrum, i.e., ΔCSTAT = CSTAT(BEST) − CSTAT(PLBB).

As a matter of fact, 56 plausibly significant PLBB spectra are identified among 16 bursts, in which 14 bursts have only 1 plausible spectrum identified. Since a blackbody component is likely to be present in multiple spectra within a burst if it is real, we drop these 14 bursts and concentrate on the remaining 4 bursts (42 spectra in total) with multiple PLBB-identified spectra. These bursts are listed in Table 3, and their simulated $\Delta\mathrm{CSTAT}_{\mathrm{crit}}$ values are also given.

We find that the spectra of the bursts listed in Table 3 have $\Delta\mathrm{CSTAT} > \Delta\mathrm{CSTAT}_{\mathrm{crit}}$, except for GRB 110920546. These 36 PLBB spectral parameters are listed in Table C.1. We note that the 4 PLBB spectra from GRB 090618353 and GRB 110622158 have values of $kT \sim 20$ keV, while the 32 spectra from GRB 090902B show $kT \sim 200$ keV. In GRB 090902B, Abdo et al. (2009) identified an extra power-law component on top of Band functions with hard values of E_{p} using wider time bins and joint GBM-LAT data. Using only the GBM data, we find that most of the BAND plus PL fits of our more resolved time bins in this time interval are either poorly constrained, unconstrained, or even not converged; but, interestingly, our values of the PL indices are very similar to theirs ($\alpha \approx -1.8$). This indicates the ability of a model to fit data depends on (1) how many free parameters (in this case, BB vs. BAND), and (2) the count statistics (GBM alone vs. GBM-LAT). We also note that Pe'er et al. (2012) used a thermal plus non-thermal theoretical model to apply to the spectra of this burst, in which they claimed that the data are consistent with such a hybrid emission model.

We note that the $\Delta\mathrm{CSTAT}_{\mathrm{crit}}$ can vary much across different bursts. Recently, Burgess et al. (2015) showed that it is very plausible to get false positive for an extra blackbody component in time-integrated spectra due to severe spectral evolution. Therefore, we recommend researchers to perform independent simulations on time-resolved spectra for different bursts in order to reduce the chance of false positives.

5.6. Comparison to time-integrated results

This catalog made the comparison between time-resolved and time-integrated fit parameters of a large sample of GRBs possible. Here we compare our time-resolved results with the time-integrated results from Gruber et al. (2014).

Comparing Fig. 3 to Figs. 3, 4, 6, & 7 in Gruber et al. (2014), no significant difference between the overall parameter populations is observed. However, using the same burst sample, Yu et al. (2015b) observed a significant and systematic widening of the curvature around the spectral peak or break when integrating over the whole burst (see their Fig. 13). Such a widening effect must be connected to systematic variation in the BEST parameters during a burst. However, it is possible that a systematic difference between time-resolved and time-integrated parameter values for individual burst may be overwhelmed by the spread in values between different bursts, and thus not apparent in the histogram plots.

We plot in Fig. 10 the comparisons between the averaged time-resolved BEST parameters ($\langle\alpha\rangle$, $\langle\beta\rangle$, $\langle E_{\mathrm{p}}\rangle$, and $\langle E_{\mathrm{b}}\rangle$) and the time-integrated BEST parameters (α^{int}, β^{int}, $E_{\mathrm{p}}^{\mathrm{int}}$, and $E_{\mathrm{b}}^{\mathrm{int}}$) for each burst in this catalog. It can be seen that the averaged time-resolved and time-integrated β and E_{b} of individual bursts are consistent. The averaged time-resolved α are slightly harder (i.e., steeper in νF_{ν} space) than the time-integrated α. A slight hardening of the averaged time-resolved E_{p} is also observed. It is also observed that the standard deviations of E_{p} are large. Moreover, it is clear from the plots that the spreads of the averaged time-resolved values are larger than their standard deviations (except for E_{p}). This implies that the time-resolved spectral behavior differs in a wide spectral range across bursts.

As Yu et al. (2015b) have shown, the widening effect is primarily contributed by the high-energy side of the spectrum across the peak or break. Figure 10 indicates that this is contributed by spectral differences that vary for individual burst, e.g., the shift in the positions of E_{p} and the different shapes of different models (cutoff vs. broken power law). We note that, instead of β which primarily controls the high-energy curvature in BAND and SBPL, α has to account for all (low-energy as well as high-energy) curvature in COMP.

6. Summary and conclusions

We present the first official gamma-ray burst time-resolved spectral catalog of the brightest subset of bursts observed by the *Fermi* GBM in its first 4 years of mission. We have obtained 1,491 spectra from 81 bursts with high spectral and temporal resolution. Using a time binning criterion of S/N = 30, it is observed that 69% of the spectra are best fit with the Comptonized model (i.e., the high-energy cutoff power law). However, we note that this may be due to poor count statistics at the high energies, as previous catalogs have pointed out (see, e.g., Kaneko et al. 2006; Goldstein et al. 2012). Similarly, Ackermann et al. (2012) showed that for the bursts observed in GBM which happen to be in the field-of-view of the LAT but remain undetected, the upper limits are usually inconsistent with the GBM fit Band function's β, extrapolated to the LAT energy range. Whether this is a real

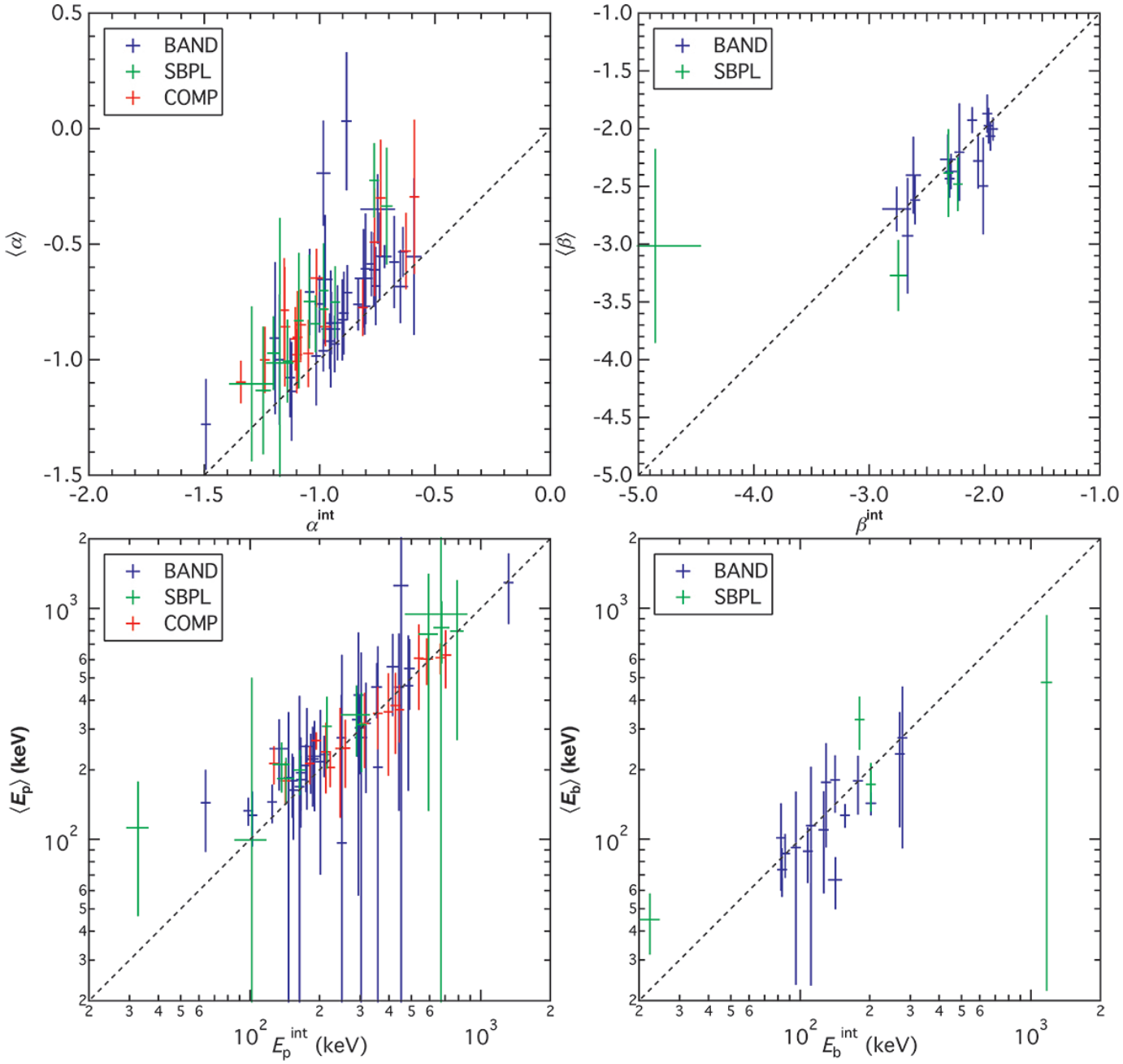

Fig. 10. Comparisons between the averaged time-resolved BEST parameters (vertical axis) and the time-integrated BEST parameters (horizontal axis) for each burst in this catalog. The errors of the averaged time-resolved parameters are given by their standard deviations within the burst. Blue, green, and red data points represent the time-integrated BEST model is BAND, SBPL , and COMP, respectively. The diagonal dashed lines show $x = y$. Only averaged time-resolved parameters determined in 5 or more time bins are included.

manifestation of GRB physics or a bias due to poor high-energy count statistics, is still unclear.

We have not observed significant deviations of the distributions of fit parameters from those observed in the *Fermi* GBM GRB time-integrated spectral catalogs (compare Fig. 3 to Figs. 3, 4, 6, & 7 in Gruber et al. 2014). However, when we look at the comparison of the averaged time-resolved parameters to the time-integrated parameters, we found that the averaged time-resolved α and $E_{\rm p}$ are harder than the time-integrated ones. Using our spectra sample, Yu et al. (2015b) found that the time-integrated spectra are wider than the time-resolved spectra. This shows that while the parameter populations of all bursts as a whole show no obvious deviations between time-integrated and time-resolved results, time-integrated analysis can actually cause a widening effect, mainly due to different best-fit models used (COMP in time-resolved and BAND/SBPL in time-integrated) and the shift in the peak positions. This issue can lead to incorrect physical interpretation of, for example, the prompt emission mechanism of GRBs.

In the 4-yr GBM GRB time-integrated spectral catalog (Gruber et al. 2014; von Kienlin et al. 2014), the question of whether there is any time-resolved spectrum with very high value of $E_{\rm p}$ is raised. Down to the level of the temporal resolution of the binned data sets in the current catalog, the answer is "no". The largest value of $E_{\rm p}$ found in this study is $7,409 \pm 597$ keV, in GRB 110721A (GBM trigger #110721200). However, we

note that very high $E_{\rm p}$ on much shorter timescales cannot be excluded. Gruber et al. (2014) discussed the very high $E_{\rm p} = 15 \pm 2$ MeV observed by Axelsson et al. (2012) in the "higher resolution" first time bin of GRB 110721A. Our aforementioned $E_{\rm p} = 7,409 \pm 597$ keV is consistent at 2σ level with their "lower resolution" first time bin of $E_{\rm p} = 5,410^{+410}_{-420}$ keV.

We establish possible logical criteria for automated process of distinguishing between "hard-to-soft" and "intensity tracking" spectral evolutionary trends. With this selection scheme, only 3.5% of bursts would be mis-attributed to the opposite kind. However, we note that inspections using human eyes are often necessary because of the existence of "hard-to-soft + intensity tracking" and FRED bursts.

We also search for plausible blackbody components in the time-resolved spectra by performing simulations on individual bursts. We find that only 3 bursts show extra blackbody components in multiple time bins. We also find that constrained fit results can be obtained only when the Planck function is added to the simple power law, using S/N = 30 binning criterion and GBM data alone.

Finally, we note that the fact that very few blackbody emission components are found in this catalog does not necessarily imply that thermal components are in general not a dominant component for the prompt emission mechanism. There are many works recently showing that a thermal model can give rise to the observed Band shape (e.g., Pe'er et al. 2006; Giannios 2008; Pe'er & Ryde 2011; Ryde et al. 2011; Vurm et al. 2011; Lazzati et al. 2013). Whether thermal or non-thermal emission dominates the emission mechanism of GRB prompt spectra is a hot debate topic. Yu et al. (2015b) showed that all standard optically thin synchrotron emission functions are just too smooth to explain the peaks or breaks in the time-resolved spectra, and an independent conclusion is also drawn by Axelsson & Borgonovo (2015) using peak-flux spectra from the GBM time-integrated catalog. Recently, semi-empirical models (e.g., Yu et al. 2015a) and physical models (e.g., Burgess et al. 2011, 2014a; Zhang et al. 2015) have been fit to time-resolved spectra of a few GRBs. In the future, direct fitting of detailed theoretical models, as oppose to empirical models, is likely the key to resolve these issues.

Acknowledgements. The authors wish to thank the anonymous referee for his/her insightful comments. HFY and JG acknowledge support by the DFG cluster of excellence "Origin and Structure of the Universe" (www.universe-cluster.de). OJR acknowledges support from Science Foundation Ireland under Grant No. 12/IP/1288. HJvE acknowledges support by the Alexander von Humboldt foundation. The GBM project is supported by the German Bundesministeriums für Wirtschaft und Technologie (BMWi) via the Deutsches Zentrum für Luft und Raumfahrt (DLR) under the contract numbers 50 QV 0301 and 50 OG 0502.

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Appendix A: Time-resolved spectral analysis results

Table A.1. Time-resolved spectral analysis results of the BEST models. Column (1) lists the GRB names using the *Fermi* GBM trigger designation. Column (2) lists the spectrum numbers within individual burst. Column (3) lists the start times T_{start} and end times T_{stop} for the time bins. Column (4) lists the BEST models. Columns (5) - (9) list the best-fit parameters of the BEST models, if applicable. Column (10) lists the values of CSTAT per degrees of freedom. Columns (11) and (12) list the 10 keV - 1 MeV photon and energy fluxes, respectively.

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
080817161	1	-6.144:4.344	COMP	0.0067 ± 0.0010	−0.835 ± 0.060	-	637.80 ± 96.70	-	570.4/480	2.1682±0.24	5.7087E-07±5.5E-08
080817161	2	4.344:5.885	COMP	0.0313 ± 0.0034	−0.829 ± 0.047	-	668.50 ± 79.10	-	492.51/480	10.172±0.82	2.7450E-06±1.8E-07
080817161	3	5.885:7.150	COMP	0.0444 ± 0.0053	−0.827 ± 0.048	-	512.90 ± 53.90	-	529.13/480	13.263±1.1	3.1743E-06±2.2E-07
080817161	4	7.150:8.200	SBPL	0.0439 ± 0.0048	−0.863 ± 0.056	−2.121 ± 0.122	388.69 ± 137.52	191.10 ± 30.90	517.04/479	15.266±1.4	3.3723E-06±2.6E-07
080817161	5	8.200:10.956	COMP	0.0303 ± 0.0049	−0.871 ± 0.057	-	348.20 ± 36.10	-	522.13/480	8.1164±0.93	1.5151E-06±1.4E-07
080817161	6	10.956:12.591	COMP	0.0288 ± 0.0041	−0.865 ± 0.052	-	479.60 ± 56.60	-	497.74/480	8.5970±0.92	1.9294E-06±1.7E-07
080817161	7	12.591:13.934	COMP	0.0380 ± 0.0050	−0.859 ± 0.051	-	482.40 ± 54.60	-	491.33/480	11.319±1.1	2.5594E-06±2.0E-07
080817161	8	13.934:15.019	COMP	0.0407 ± 0.0048	−0.865 ± 0.047	-	591.50 ± 69.80	-	547.03/480	12.969±1.1	3.2167E-06±2.3E-07
080817161	9	15.019:16.156	COMP	0.0427 ± 0.0051	−0.964 ± 0.045	-	570.10 ± 72.90	-	522.31/480	14.229±1.3	3.1806E-06±2.3E-07
080817161	10	16.156:17.397	COMP	0.0469 ± 0.0072	−0.864 ± 0.053	-	373.40 ± 38.30	-	468.44/480	12.804±1.4	2.5037E-06±2.3E-07
080817161	11	17.397:18.589	COMP	0.0405 ± 0.0057	−0.922 ± 0.050	-	453.90 ± 53.10	-	587.4/480	12.337±1.3	2.5707E-06±2.2E-07
080817161	12	18.589:20.151	COMP	0.0340 ± 0.0048	−0.941 ± 0.051	-	452.10 ± 55.00	-	492.46/480	10.475±1.1	2.1464E-06±1.9E-07
080817161	13	20.151:24.341	COMP	0.0181 ± 0.0037	−1.111 ± 0.059	-	342.00 ± 52.90	-	515.34/480	5.9592±0.89	9.3062E-07±1.2E-07
080817161	14	24.341:38.891	COMP	0.0100 ± 0.0035	−1.114 ± 0.086	-	199.20 ± 29.90	-	582.59/480	2.8180±0.73	3.2728E-07±7.6E-08
080817161	15	38.891:54.190	COMP	0.0042 ± 0.0014	−1.248 ± 0.072	-	347.90 ± 87.60	-	552.78/480	1.6091±0.45	2.2790E-07±5.8E-08
080817161	16	54.190:89.088	none	-	-	-	-	-	-	-	-
080825593	1	-1.024:1.603	COMP	0.0398 ± 0.0095	−0.731 ± 0.074	-	255.50 ± 23.70	-	493.97/477	8.2295±1.5	1.3560E-06±2.3E-07
080825593	2	1.603:2.057	SBPL	0.0955 ± 0.0120	−0.690 ± 0.082	−2.064 ± 0.123	306.20 ± 109.70	132.20 ± 21.40	505.72/476	29.878±3.4	6.3902E-06±6.3E-07
080825593	3	2.057:2.803	COMP	0.1215 ± 0.0244	−0.746 ± 0.065	-	245.40 ± 19.60	-	495.88/477	24.921±3.6	3.9609E-06±5.1E-07
080825593	4	2.803:3.274	BAND	0.2632 ± 0.0513	−0.342 ± 0.095	−2.358 ± 0.187	221.50 ± 19.90	138.09 ± 15.75	474.72/476	36.202±4.0	7.2656E-06±6.9E-07
080825593	5	3.274:3.872	COMP	0.1436 ± 0.0301	−0.611 ± 0.071	-	236.50 ± 17.60	-	480.67/477	25.445±3.8	4.1833E-06±5.6E-07
080825593	6	3.872:4.874	COMP	0.0784 ± 0.0213	−0.715 ± 0.073	-	211.90 ± 16.70	-	496.93/477	14.439±3.1	2.0897E-06±4.3E-07
080825593	7	4.874:5.922	COMP	0.1599 ± 0.0400	−0.570 ± 0.076	-	178.60 ± 10.90	-	605.74/477	22.731±4.1	3.0521E-06±5.1E-07
080825593	8	5.922:9.502	COMP	0.0522 ± 0.0193	−0.764 ± 0.088	-	158.30 ± 12.50	-	463.8/477	8.6524±2.6	9.9428E-07±2.8E-07
080825593	9	9.502:11.986	COMP	0.0915 ± 0.0242	−0.626 ± 0.084	-	182.40 ± 13.10	-	507.55/477	14.033±2.6	1.8776E-06±3.1E-07
080825593	10	11.986:14.806	COMP	0.0469 ± 0.0119	−0.765 ± 0.077	-	225.40 ± 20.60	-	498.84/477	9.3886±1.8	1.3910E-06±2.4E-07
080825593	11	14.806:16.323	COMP	0.1046 ± 0.0314	−0.585 ± 0.078	-	168.30 ± 10.30	-	531.15/477	14.535±3.4	1.8539E-06±4.2E-07
080825593	12	16.323:19.254	PL	0.0041 ± 0.0013	−1.491 ± 0.020	-	-	-	728.52/478	2.3032±0.73	3.7496E-07±1.2E-07
080825593	13	19.254:25.254	SBPL	0.0237 ± 0.0086	−1.052 ± 0.099	−2.900 ± 0.504	116.79 ± 37.57	111.30 ± 29.80	489.43/476	9.4644±3.2	9.9675E-07±2.9E-07
080825593	14	25.254:37.888	none	-	-	-	-	-	-	-	-
080916009	1	-1.024:1.524	COMP	0.0247 ± 0.0041	−0.658 ± 0.071	-	501.70 ± 70.20	-	413.71/360	6.7276±0.77	1.8071E-06±1.7E-07
080916009	2	1.524:2.442	COMP	0.0493 ± 0.0081	−0.705 ± 0.066	-	477.10 ± 63.20	-	409.69/360	13.419±1.5	3.3883E-06±3.2E-07
080916009	3	2.442:3.280	COMP	0.0461 ± 0.0069	−0.777 ± 0.059	-	594.40 ± 89.00	-	341.97/360	14.138±1.5	3.7874E-06±3.3E-07
080916009	4	3.280:4.278	COMP	0.0524 ± 0.0077	−0.700 ± 0.062	-	525.50 ± 67.80	-	404.72/360	14.837±1.5	3.9673E-06±3.1E-07
080916009	5	4.278:5.305	BAND	0.0263 ± 0.0033	−0.914 ± 0.050	−2.025 ± 0.165	1682.00 ± 532.00	861.12 ± 280.14	373.01/359	10.582±1.0	3.3983E-06±2.8E-07
080916009	6	5.305:6.200	COMP	0.0347 ± 0.0036	−1.307 ± 0.029	-	3268.00 ± 777.00	-	383.91/360	16.852±1.8	3.4618E-06±3.1E-07
080916009	7	6.200:7.387	COMP	0.0307 ± 0.0057	−1.151 ± 0.054	-	744.50 ± 224.00	-	380.38/360	12.152±1.7	2.4723E-06±2.9E-07
080916009	8	7.387:9.391	COMP	0.0165 ± 0.0022	−1.264 ± 0.033	-	2538.00 ± 797.00	-	347.08/360	7.7312±1.0	1.6617E-06±1.9E-07
080916009	9	9.391:12.023	COMP	0.0119 ± 0.0016	−1.297 ± 0.030	-	4714.00 ± 1440.00	-	461.84/360	5.7881±0.81	1.2294E-06±1.5E-07
080916009	10	12.023:14.837	COMP	0.0123 ± 0.0027	−1.085 ± 0.062	-	832.30 ± 284.00	-	367.64/360	4.7653±0.82	1.0755E-06±1.6E-07
080916009	11	14.837:17.692	SBPL	0.0158 ± 0.0027	−1.104 ± 0.068	−1.757 ± 0.092	-	189.00 ± 70.30	411.53/359	6.5352±0.96	1.3767E-06±1.7E-07
080916009	12	17.692:20.281	COMP	0.0243 ± 0.0060	−0.987 ± 0.072	-	366.00 ± 70.10	-	406.43/360	7.2882±1.3	1.2921E-06±1.9E-07
080916009	13	20.281:22.466	COMP	0.0276 ± 0.0057	−0.897 ± 0.069	-	439.30 ± 78.60	-	388.05/360	8.1611±1.2	1.7059E-06±2.0E-07
080916009	14	22.466:24.214	COMP	0.0182 ± 0.0041	−1.064 ± 0.062	-	633.60 ± 176.00	-	372.9/360	6.6074±1.2	1.3997E-06±2.1E-07
080916009	15	24.214:26.288	COMP	0.0208 ± 0.0045	−1.007 ± 0.065	-	533.20 ± 123.00	-	363.17/360	7.0274±1.1	1.4694E-06±2.0E-07

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
080916009	16	26.288:28.948	COMP	0.0198 ± 0.0045	−1.093 ± 0.066	-	507.00 ± 133.00	-	394.55/360	7.0113±1.2	1.3273E-06±1.8E-07
080916009	17	28.948:31.730	COMP	0.0122 ± 0.0025	−1.117 ± 0.057	-	955.20 ± 349.00	-	363.14/360	4.8843±0.82	1.1017E-06±1.6E-07
080916009	18	31.730:35.075	COMP	0.0194 ± 0.0053	−1.060 ± 0.073	-	356.90 ± 77.40	-	414.26/360	6.1631±1.2	1.0221E-06±1.7E-07
080916009	19	35.075:38.517	COMP	0.0151 ± 0.0029	−1.034 ± 0.062	-	690.50 ± 187.00	-	407.55/360	5.4798±0.80	1.2319E-06±1.5E-07
080916009	20	38.517:43.426	COMP	0.0119 ± 0.0024	−1.026 ± 0.065	-	672.50 ± 186.00	-	405.41/360	4.2752±0.66	9.5987E-07±1.2E-07
080916009	21	43.426:47.931	COMP	0.0143 ± 0.0036	−0.840 ± 0.080	-	399.90 ± 74.20	-	424.88/360	3.9500±0.73	8.1782E-07±1.3E-07
080916009	22	47.931:57.730	none	-	-	-	-	-	-	-	-
080916009	23	57.730:64.794	COMP	0.0090 ± 0.0034	−1.048 ± 0.088	-	312.70 ± 74.10	-	409.93/360	2.7108±0.82	4.2255E-07±1.2E-07
080916009	24	64.794:87.040	none	-	-	-	-	-	-	-	-
081009140	1	-1.024:0.792	none	-	-	-	-	-	-	-	-
081009140	2	0.792:1.224	none	-	-	-	-	-	-	-	-
081009140	3	1.224:1.473	none	-	-	-	-	-	-	-	-
081009140	4	1.473:1.666	none	-	-	-	-	-	-	-	-
081009140	5	1.666:1.831	none	-	-	-	-	-	-	-	-
081009140	6	1.831:1.965	none	-	-	-	-	-	-	-	-
081009140	7	1.965:2.076	none	-	-	-	-	-	-	-	-
081009140	8	2.076:2.176	none	-	-	-	-	-	-	-	-
081009140	9	2.176:2.274	none	-	-	-	-	-	-	-	-
081009140	10	2.274:2.372	none	-	-	-	-	-	-	-	-
081009140	11	2.372:2.471	none	-	-	-	-	-	-	-	-
081009140	12	2.471:2.560	none	-	-	-	-	-	-	-	-
081009140	13	2.560:2.657	PL	0.0720 ± 0.0282	−1.839 ± 0.029	-	-	-	547.97/359	57.826±23.0	5.4264E-06±2.1E-06
081009140	14	2.657:2.746	none	-	-	-	-	-	-	-	-
081009140	15	2.746:2.825	none	-	-	-	-	-	-	-	-
081009140	16	2.825:2.906	PL	0.0696 ± 0.0252	−1.747 ± 0.028	-	-	-	512.24/359	50.290±19.0	5.4266E-06±2.0E-06
081009140	17	2.906:2.992	none	-	-	-	-	-	-	-	-
081009140	18	2.992:3.085	none	-	-	-	-	-	-	-	-
081009140	19	3.085:3.182	none	-	-	-	-	-	-	-	-
081009140	20	3.182:3.281	none	-	-	-	-	-	-	-	-
081009140	21	3.281:3.392	none	-	-	-	-	-	-	-	-
081009140	22	3.392:3.507	none	-	-	-	-	-	-	-	-
081009140	23	3.507:3.628	none	-	-	-	-	-	-	-	-
081009140	24	3.628:3.747	none	-	-	-	-	-	-	-	-
081009140	25	3.747:3.864	none	-	-	-	-	-	-	-	-
081009140	26	3.864:3.978	none	-	-	-	-	-	-	-	-
081009140	27	3.978:4.099	none	-	-	-	-	-	-	-	-
081009140	28	4.099:4.223	none	-	-	-	-	-	-	-	-
081009140	29	4.223:4.346	none	-	-	-	-	-	-	-	-
081009140	30	4.346:4.474	none	-	-	-	-	-	-	-	-
081009140	31	4.474:4.595	none	-	-	-	-	-	-	-	-
081009140	32	4.595:4.714	none	-	-	-	-	-	-	-	-
081009140	33	4.714:4.839	none	-	-	-	-	-	-	-	-
081009140	34	4.839:4.979	none	-	-	-	-	-	-	-	-
081009140	35	4.979:5.125	none	-	-	-	-	-	-	-	-
081009140	36	5.125:5.278	none	-	-	-	-	-	-	-	-
081009140	37	5.278:5.444	none	-	-	-	-	-	-	-	-
081009140	38	5.444:5.629	none	-	-	-	-	-	-	-	-
081009140	39	5.629:5.863	none	-	-	-	-	-	-	-	-
081009140	40	5.863:6.106	none	-	-	-	-	-	-	-	-
081009140	41	6.106:6.362	none	-	-	-	-	-	-	-	-
081009140	42	6.362:6.656	none	-	-	-	-	-	-	-	-
081009140	43	6.656:6.993	none	-	-	-	-	-	-	-	-
081009140	44	6.993:7.488	none	-	-	-	-	-	-	-	-

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
081009140	45	7.488:11.264	none	-	-	-	-	-	-	-	-
081009140	46	32.768:39.934	none	-	-	-	-	-	-	-	-
081009140	47	39.934:40.696	none	-	-	-	-	-	-	-	-
081009140	48	40.696:41.290	none	-	-	-	-	-	-	-	-
081009140	49	41.290:41.769	none	-	-	-	-	-	-	-	-
081009140	50	41.769:42.236	none	-	-	-	-	-	-	-	-
081009140	51	42.236:42.708	none	-	-	-	-	-	-	-	-
081009140	52	42.708:43.272	none	-	-	-	-	-	-	-	-
081009140	53	43.272:43.858	none	-	-	-	-	-	-	-	-
081009140	54	43.858:44.496	none	-	-	-	-	-	-	-	-
081009140	55	44.496:45.512	none	-	-	-	-	-	-	-	-
081009140	56	45.512:47.246	none	-	-	-	-	-	-	-	-
081009140	57	47.246:55.296	none	-	-	-	-	-	-	-	-
081124060	1	-3.072:1.751	none	-	-	-	-	-	-	-	-
081124060	2	1.751:3.787	none	-	-	-	-	-	-	-	-
081124060	3	3.787:6.145	none	-	-	-	-	-	-	-	-
081124060	4	6.145:9.855	none	-	-	-	-	-	-	-	-
081124060	5	9.855:11.601	none	-	-	-	-	-	-	-	-
081124060	6	11.601:12.398	none	-	-	-	-	-	-	-	-
081124060	7	12.398:13.148	none	-	-	-	-	-	-	-	-
081124060	8	13.148:14.081	none	-	-	-	-	-	-	-	-
081124060	9	14.081:15.050	none	-	-	-	-	-	-	-	-
081124060	10	15.050:16.379	none	-	-	-	-	-	-	-	-
081124060	11	16.379:21.047	none	-	-	-	-	-	-	-	-
081124060	12	21.047:28.672	none	-	-	-	-	-	-	-	-
081125496	1	-1.024:1.766	COMP	0.0365 ± 0.0074	−0.549 ± 0.099	-	362.20 ± 46.00	-	382.4/357	7.9540±1.0	1.8552E-06±1.8E-07
081125496	2	1.766:2.406	COMP	0.1714 ± 0.0363	−0.247 ± 0.102	-	262.60 ± 20.90	-	358.3/357	24.450±3.0	5.0687E-06±4.8E-07
081125496	3	2.406:2.939	COMP	0.3604 ± 0.0862	−0.023 ± 0.114	-	211.20 ± 13.30	-	374.68/357	35.261±4.6	6.4840E-06±6.8E-07
081125496	4	2.939:3.615	COMP	0.3372 ± 0.1270	−0.064 ± 0.132	-	157.10 ± 10.30	-	415.03/357	24.927±5.9	3.4839E-06±7.5E-07
081125496	5	3.615:4.534	PL	0.0069 ± 0.0021	−1.447 ± 0.032	-	-	-	541.67/358	3.7802±1.2	6.5998E-07±2.0E-07
081125496	6	4.534:5.593	PL	0.0103 ± 0.0025	−1.483 ± 0.034	-	-	-	563.57/358	5.7979±1.5	9.5561E-07±2.2E-07
081125496	7	5.593:6.695	none	-	-	-	-	-	-	-	-
081125496	8	6.695:12.288	none	-	-	-	-	-	-	-	-
081207680	1	-5.120:12.357	COMP	0.0142 ± 0.0042	0.098 ± 0.147	-	244.20 ± 20.10	-	597.18/357	1.5019±0.28	3.2644E-07±5.4E-08
081207680	2	12.357:22.424	COMP	0.0124 ± 0.0021	−0.292 ± 0.092	-	401.40 ± 38.00	-	501.84/357	2.5508±0.27	7.3378E-07±6.5E-08
081207680	3	22.424:30.383	BAND	0.0207 ± 0.0040	−0.129 ± 0.123	−2.060 ± 0.128	335.80 ± 40.70	176.02 ± 22.04	380.9/356	3.5702±0.32	1.0782E-06±7.8E-08
081207680	4	30.383:36.765	COMP	0.0108 ± 0.0013	−0.702 ± 0.057	-	848.90 ± 122.00	-	433.38/357	3.6447±0.31	1.2123E-06±8.3E-08
081207680	5	36.765:42.155	COMP	0.0107 ± 0.0013	−0.738 ± 0.058	-	874.30 ± 139.00	-	311.23/357	3.6584±0.34	1.1908E-06±9.1E-08
081207680	6	42.155:48.744	COMP	0.0126 ± 0.0017	−0.624 ± 0.065	-	591.30 ± 73.30	-	382.79/357	3.6544±0.35	1.1021E-06±8.3E-08
081207680	7	48.744:56.238	COMP	0.0099 ± 0.0016	−0.805 ± 0.063	-	615.10 ± 102.00	-	471.89/357	3.1177±0.36	8.3066E-07±7.9E-08
081207680	8	56.238:64.930	COMP	0.0084 ± 0.0014	−0.918 ± 0.060	-	734.70 ± 154.00	-	473.85/357	2.9060±0.35	7.5081E-07±7.4E-08
081207680	9	64.930:80.441	COMP	0.0073 ± 0.0020	−0.878 ± 0.093	-	382.00 ± 80.30	-	447.32/357	2.0242±0.38	3.9800E-07±6.0E-08
081207680	10	80.441:112.640	none	-	-	-	-	-	-	-	-
081215784	1	-3.072:1.414	COMP	0.0136 ± 0.0009	−0.793 ± 0.036	-	1443.00 ± 151.00	-	479.26/477	5.2806±0.31	1.8778E-06±8.7E-08
081215784	2	1.414:1.493	BAND	0.3859 ± 0.0267	−0.365 ± 0.043	−2.629 ± 0.152	942.30 ± 70.00	653.53 ± 59.18	448.68/476	137.17±6.6	6.1365E-05±2.4E-06
081215784	3	1.493:1.574	SBPL	0.3485 ± 0.0245	−0.466 ± 0.043	−2.376 ± 0.100	643.11 ± 80.89	393.90 ± 40.20	458.3/476	138.82±7.2	5.5354E-05±2.2E-06
081215784	4	1.574:1.704	BAND	0.3623 ± 0.0383	−0.400 ± 0.057	−2.240 ± 0.087	499.00 ± 44.30	290.57 ± 26.96	533.15/476	90.636±5.4	2.9221E-05±1.4E-06
081215784	5	1.704:1.926	BAND	0.2672 ± 0.0365	−0.498 ± 0.065	−2.308 ± 0.124	358.30 ± 34.50	219.36 ± 23.25	464.13/476	56.904±4.3	1.4281E-05±8.6E-07
081215784	6	1.926:2.437	BAND	0.2202 ± 0.0382	−0.453 ± 0.086	−2.137 ± 0.097	210.00 ± 19.40	117.90 ± 11.40	552.38/476	32.522±3.0	6.3295E-06±4.9E-07
081215784	7	2.437:3.159	COMP	0.0835 ± 0.0114	−0.874 ± 0.046	-	336.50 ± 27.70	-	542.3/477	22.095±2.2	4.0362E-06±3.4E-07
081215784	8	3.159:3.643	COMP	0.1328 ± 0.0158	−0.648 ± 0.048	-	368.20 ± 25.10	-	539.34/477	31.016±2.5	6.9123E-06±4.5E-07
081215784	9	3.643:3.913	COMP	0.2312 ± 0.0226	−0.571 ± 0.043	-	424.30 ± 25.00	-	527.36/477	55.739±3.8	1.4312E-05±7.6E-07
081215784	10	3.913:4.365	COMP	0.2762 ± 0.0478	−0.515 ± 0.060	-	207.70 ± 10.60	-	525.9/477	41.130±4.7	6.3428E-06±6.3E-07

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GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
081215784	11	4.365:4.821	COMP	0.1460 ± 0.0216	−0.670 ± 0.053	-	280.90 ± 18.30	-	526.6/477	30.062±3.1	5.4689E-06±4.8E-07
081215784	12	4.821:5.092	COMP	0.1947 ± 0.0208	−0.515 ± 0.048	-	395.90 ± 23.40	-	477.15/477	43.895±3.3	1.1114E-05±6.8E-07
081215784	13	5.092:5.225	COMP	0.3067 ± 0.0247	−0.551 ± 0.039	-	599.50 ± 36.20	-	522.62/477	87.595±5.2	2.8017E-05±1.3E-06
081215784	14	5.225:5.460	SBPL	0.2346 ± 0.0230	−0.587 ± 0.062	−2.525 ± 0.137	233.15 ± 30.36	164.70 ± 17.90	511.01/476	67.244±5.6	1.4142E-05±9.6E-07
081215784	15	5.460:6.208	COMP	0.1181 ± 0.0200	−0.747 ± 0.055	-	232.30 ± 14.80	-	514.57/477	23.612±2.8	3.6027E-06±3.8E-07
081215784	16	6.208:7.661	BAND	0.1563 ± 0.0363	−0.713 ± 0.101	−2.380 ± 0.165	120.20 ± 11.10	81.39 ± 9.66	510.65/476	21.249±3.6	2.5136E-06±3.6E-07
081215784	17	7.661:12.288	none	-	-	-	-	-	-	-	-
081221681	1	-1.024:5.695	PL	0.0020 ± 0.0007	−1.563 ± 0.026	-	-	-	573.26/361	1.1728±0.43	1.6939E-07±6.0E-08
081221681	2	5.695:15.558	none	-	-	-	-	-	-	-	-
081221681	3	15.558:17.846	none	-	-	-	-	-	-	-	-
081221681	4	17.846:18.544	PL	0.0061 ± 0.0023	−1.557 ± 0.029	-	-	-	646.41/361	3.6137±1.4	5.2670E-07±2.0E-07
081221681	5	18.544:19.124	none	-	-	-	-	-	-	-	-
081221681	6	19.124:19.688	PL	0.0078 ± 0.0026	−1.541 ± 0.028	-	-	-	638.69/361	4.5712±1.5	6.8362E-07±2.2E-07
081221681	7	19.688:20.248	none	-	-	-	-	-	-	-	-
081221681	8	20.248:20.720	PL	0.0096 ± 0.0027	−1.527 ± 0.028	-	-	-	534.98/361	5.6117±1.6	8.5835E-07±2.4E-07
081221681	9	20.720:21.140	none	-	-	-	-	-	-	-	-
081221681	10	21.140:21.486	PL	0.0094 ± 0.0031	−1.505 ± 0.029	-	-	-	552.35/361	5.3764±1.8	8.5301E-07±2.8E-07
081221681	11	21.486:21.833	PL	0.0080 ± 0.0031	−1.501 ± 0.029	-	-	-	640.99/361	4.5334±1.8	7.2373E-07±2.8E-07
081221681	12	21.833:22.248	PL	0.0088 ± 0.0031	−1.547 ± 0.029	-	-	-	618.8/361	5.1998±1.9	7.7012E-07±2.7E-07
081221681	13	22.248:22.764	none	-	-	-	-	-	-	-	-
081221681	14	22.764:23.309	none	-	-	-	-	-	-	-	-
081221681	15	23.309:23.828	none	-	-	-	-	-	-	-	-
081221681	16	23.828:24.272	PL	0.0085 ± 0.0031	−1.560 ± 0.028	-	-	-	572.69/361	5.0861±1.9	7.3763E-07±2.6E-07
081221681	17	24.272:24.652	none	-	-	-	-	-	-	-	-
081221681	18	24.652:25.150	none	-	-	-	-	-	-	-	-
081221681	19	25.150:25.728	none	-	-	-	-	-	-	-	-
081221681	20	25.728:26.216	none	-	-	-	-	-	-	-	-
081221681	21	26.216:26.689	none	-	-	-	-	-	-	-	-
081221681	22	26.689:27.191	none	-	-	-	-	-	-	-	-
081221681	23	27.191:27.676	none	-	-	-	-	-	-	-	-
081221681	24	27.676:28.206	none	-	-	-	-	-	-	-	-
081221681	25	28.206:28.771	none	-	-	-	-	-	-	-	-
081221681	26	28.771:29.368	none	-	-	-	-	-	-	-	-
081221681	27	29.368:30.074	none	-	-	-	-	-	-	-	-
081221681	28	30.074:30.881	none	-	-	-	-	-	-	-	-
081221681	29	30.881:32.020	none	-	-	-	-	-	-	-	-
081221681	30	32.020:34.288	none	-	-	-	-	-	-	-	-
081221681	31	34.288:54.272	none	-	-	-	-	-	-	-	-
081224887	1	0.000:1.036	COMP	0.0416 ± 0.0033	−0.244 ± 0.064	-	766.00 ± 54.90	-	566.66/478	13.498±0.74	5.9482E-06±2.5E-07
081224887	2	1.036:1.796	COMP	0.0773 ± 0.0067	−0.149 ± 0.062	-	528.90 ± 29.80	-	502.14/478	19.271±1.1	7.2254E-06±3.2E-07
081224887	3	1.796:2.311	COMP	0.1113 ± 0.0128	−0.218 ± 0.065	-	411.80 ± 25.10	-	459.25/478	22.891±1.7	6.9482E-06±4.1E-07
081224887	4	2.311:2.792	COMP	0.1079 ± 0.0126	−0.367 ± 0.060	-	419.80 ± 28.40	-	520.64/478	23.661±1.8	6.7730E-06±4.2E-07
081224887	5	2.792:3.304	COMP	0.1359 ± 0.0164	−0.416 ± 0.059	-	366.60 ± 23.30	-	463.11/478	27.742±2.2	7.0077E-06±4.4E-07
081224887	6	3.304:3.777	COMP	0.1285 ± 0.0200	−0.532 ± 0.063	-	315.70 ± 23.60	-	517.16/478	25.501±2.6	5.4262E-06±4.6E-07
081224887	7	3.777:4.424	COMP	0.1114 ± 0.0170	−0.609 ± 0.059	-	309.90 ± 23.30	-	477.55/478	23.087±2.3	4.6586E-06±3.9E-07
081224887	8	4.424:5.292	COMP	0.1065 ± 0.0201	−0.645 ± 0.066	-	241.30 ± 17.90	-	521.2/478	19.691±2.5	3.2379E-06±3.5E-07
081224887	9	5.292:6.468	COMP	0.0765 ± 0.0179	−0.570 ± 0.074	-	210.40 ± 14.50	-	514.37/478	12.120±2.1	1.8495E-06±2.9E-07
081224887	10	6.468:8.355	COMP	0.0705 ± 0.0194	−0.665 ± 0.079	-	179.40 ± 13.30	-	491.92/478	11.181±2.2	1.4565E-06±2.6E-07
081224887	11	8.355:13.975	COMP	0.0191 ± 0.0073	−0.988 ± 0.077	-	168.30 ± 16.90	-	526.11/478	4.3257±1.4	4.7851E-07±1.4E-07
081224887	12	13.975:35.840	none	-	-	-	-	-	-	-	-
090131090	1	-1.024:3.299	PL	0.0063 ± 0.0015	−1.724 ± 0.033	-	-	-	438.99/359	4.4277±1.1	4.9673E-07±1.2E-07
090131090	2	3.299:3.892	none	-	-	-	-	-	-	-	-
090131090	3	3.892:6.470	PL	0.0060 ± 0.0024	−1.849 ± 0.035	-	-	-	445.6/359	4.8578±2.0	4.5037E-07±1.8E-07

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GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
090131090	4	6.470:6.844	PL	0.0224 ± 0.0077	−1.932 ± 0.036	-	-	-	523.1/359	20.096±7.2	1.6534E-06±5.7E-07
090131090	5	6.844:7.015	none	-	-	-	-	-	-	-	-
090131090	6	7.015:7.221	none	-	-	-	-	-	-	-	-
090131090	7	7.221:7.523	PL	0.0301 ± 0.0107	−2.051 ± 0.040	-	-	-	534.47/359	31.746±12.0	2.2242E-06±7.9E-07
090131090	8	7.523:9.357	none	-	-	-	-	-	-	-	-
090131090	9	21.504:23.114	COMP	0.0379 ± 0.0112	−1.168 ± 0.078	-	229.00 ± 39.00	-	441.43/358	11.906±2.5	1.4591E-06±2.6E-07
090131090	10	23.114:23.422	COMP	0.2461 ± 0.0894	−1.153 ± 0.088	-	126.80 ± 13.00	-	361.29/358	62.590±16.0	5.5391E-06±1.3E-06
090131090	11	23.422:23.898	SBPL	0.0380 ± 0.0118	−1.156 ± 0.237	−2.149 ± 0.139	70.75 ± 34.03	40.02 ± 15.20	368.52/357	24.866±7.5	2.2986E-06±6.3E-07
090131090	12	23.898:26.171	PL	0.0099 ± 0.0024	−1.795 ± 0.033	-	-	-	562.6/359	7.5285±1.9	7.5678E-07±1.8E-07
090131090	13	26.171:29.260	PL	0.0074 ± 0.0018	−1.747 ± 0.033	-	-	-	481.9/359	5.2932±1.4	5.7315E-07±1.4E-07
090131090	14	29.260:32.944	COMP	0.0422 ± 0.0168	−1.328 ± 0.092	-	135.00 ± 21.80	-	549.23/358	14.206±3.9	1.2373E-06±2.9E-07
090131090	15	32.944:37.138	PL	0.0056 ± 0.0020	−1.876 ± 0.037	-	-	-	487.59/359	4.6896±1.7	4.1817E-07±1.5E-07
090131090	16	37.138:41.984	PL	0.0087 ± 0.0024	−1.936 ± 0.082	-	-	-	495.57/359	7.8243±2.6	6.4037E-07±1.7E-07
090328401	1	-3.072:5.936	COMP	0.0115 ± 0.0015	−0.771 ± 0.056	-	530.50 ± 62.10	-	596.68/478	3.3868±0.31	8.6302E-07±6.4E-08
090328401	2	5.936:11.950	COMP	0.0104 ± 0.0011	−0.843 ± 0.046	-	959.50 ± 143.00	-	617.44/478	3.7400±0.30	1.1366E-06±7.5E-08
090328401	3	11.950:15.372	COMP	0.0217 ± 0.0018	−0.798 ± 0.039	-	868.20 ± 91.70	-	559.98/478	7.5307±0.46	2.3145E-06±1.1E-07
090328401	4	15.372:17.243	COMP	0.0379 ± 0.0040	−0.758 ± 0.045	-	537.00 ± 50.10	-	489.1/478	11.102±0.83	2.8761E-06±1.7E-07
090328401	5	17.243:19.788	COMP	0.0222 ± 0.0026	−0.984 ± 0.043	-	681.00 ± 99.00	-	529.7/478	7.8255±0.70	1.8438E-06±1.4E-07
090328401	6	19.788:22.693	COMP	0.0277 ± 0.0035	−1.046 ± 0.042	-	494.40 ± 64.30	-	568.98/478	9.4164±0.87	1.8420E-06±1.4E-07
090328401	7	22.693:24.369	COMP	0.0394 ± 0.0047	−0.907 ± 0.043	-	503.90 ± 54.50	-	568.75/478	12.264±1.0	2.7290E-06±1.9E-07
090328401	8	24.369:29.123	COMP	0.0160 ± 0.0027	−1.171 ± 0.046	-	448.50 ± 76.80	-	530.7/478	5.9003±0.74	9.9116E-07±1.1E-07
090328401	9	29.123:56.570	PL	0.0014 ± 0.0003	−1.501 ± 0.027	-	-	-	777.71/479	0.78280±0.17	1.2533E-07±2.6E-08
090328401	10	56.570:77.824	none	-	-	-	-	-	-	-	-
090424592	1	-1.024:0.472	COMP	0.2516 ± 0.0979	−0.873 ± 0.086	-	97.66 ± 5.58	-	522.52/478	37.029±10.0	2.9769E-06±8.0E-07
090424592	2	0.472:0.614	BAND	0.5241 ± 0.2080	−0.752 ± 0.094	−3.063 ± 0.441	99.76 ± 6.77	96.39 ± 17.81	501.56/477	65.507±25.0	5.9679E-06±2.1E-06
090424592	3	0.614:0.708	COMP	1.0350 ± 0.2650	−0.740 ± 0.067	-	139.20 ± 7.25	-	484.72/478	154.58±29.0	1.6314E-05±2.8E-06
090424592	4	0.708:0.792	COMP	0.9842 ± 0.2560	−0.833 ± 0.067	-	138.90 ± 7.92	-	444.46/478	166.24±31.0	1.7040E-05±3.0E-06
090424592	5	0.792:0.883	COMP	1.0150 ± 0.2540	−0.852 ± 0.065	-	139.80 ± 7.96	-	465.21/478	176.46±32.0	1.8060E-05±3.0E-06
090424592	6	0.883:0.976	COMP	1.0450 ± 0.2720	−0.783 ± 0.068	-	138.00 ± 7.46	-	468.01/478	164.45±31.0	1.7027E-05±3.0E-06
090424592	7	0.976:1.070	COMP	0.4558 ± 0.0781	−0.950 ± 0.052	-	248.50 ± 20.20	-	465.92/478	115.40±14.0	1.6663E-05±1.8E-06
090424592	8	1.070:1.155	COMP	0.6105 ± 0.1270	−0.838 ± 0.059	-	202.70 ± 14.30	-	465.86/478	125.55±19.0	1.6697E-05±2.2E-06
090424592	9	1.155:1.262	COMP	0.5173 ± 0.1040	−0.930 ± 0.057	-	199.20 ± 14.80	-	474.68/478	117.31±17.0	1.4815E-05±1.9E-06
090424592	10	1.262:1.339	COMP	1.0500 ± 0.1860	−0.502 ± 0.060	-	218.70 ± 12.00	-	456.14/478	159.99±19.0	2.5849E-05±2.6E-06
090424592	11	1.339:1.417	COMP	0.5982 ± 0.0948	−0.758 ± 0.051	-	268.70 ± 18.40	-	460.43/478	130.01±15.0	2.1890E-05±2.1E-06
090424592	12	1.417:1.494	COMP	0.8583 ± 0.1310	−0.667 ± 0.052	-	252.60 ± 15.50	-	454.73/478	166.43±17.0	2.8027E-05±2.4E-06
090424592	13	1.494:1.609	COMP	0.9154 ± 0.2480	−0.615 ± 0.071	-	137.10 ± 6.49	-	426.42/478	114.97±23.0	1.2428E-05±2.4E-06
090424592	14	1.609:1.842	SBPL	0.0843 ± 0.0287	−0.996 ± 0.112	−2.606 ± 0.186	77.12 ± 15.37	64.60 ± 11.90	537.68/477	43.806±14.0	3.9651E-06±1.2E-06
090424592	15	1.842:2.076	BAND	0.3913 ± 0.1420	−0.696 ± 0.124	−2.528 ± 0.199	90.45 ± 8.19	67.06 ± 8.32	499.82/477	42.731±13.0	4.1438E-06±1.2E-06
090424592	16	2.076:2.249	COMP	0.7359 ± 0.2020	−0.694 ± 0.071	-	133.70 ± 6.79	-	467.0/478	100.85±20.0	1.0475E-05±2.0E-06
090424592	17	2.249:2.484	SBPL	0.0752 ± 0.0264	−0.538 ± 0.194	−2.564 ± 0.135	61.26 ± 10.17	44.01 ± 6.86	517.0/477	41.970±15.0	3.7099E-06±1.2E-06
090424592	18	2.484:2.713	COMP	0.2802 ± 0.0612	−0.997 ± 0.059	-	182.40 ± 14.10	-	467.38/478	66.371±11.0	7.6965E-06±1.1E-06
090424592	19	2.713:2.880	COMP	0.6703 ± 0.1500	−0.680 ± 0.066	-	160.50 ± 8.61	-	499.66/478	101.08±16.0	1.2053E-05±1.7E-06
090424592	20	2.880:3.035	COMP	0.3853 ± 0.0620	−0.773 ± 0.053	-	265.50 ± 19.80	-	502.84/478	84.361±9.2	1.3979E-05±1.3E-06
090424592	21	3.035:3.212	COMP	0.7130 ± 0.2730	−0.444 ± 0.080	-	116.40 ± 4.69	-	462.4/478	63.008±20.0	6.2773E-06±2.0E-06
090424592	22	3.212:3.705	SBPL	0.0566 ± 0.0223	−1.168 ± 0.118	−2.714 ± 0.225	64.68 ± 14.40	60.94 ± 13.00	534.76/477	36.494±14.0	2.8011E-06±1.0E-06
090424592	23	3.705:3.868	COMP	0.5904 ± 0.1370	−0.603 ± 0.068	-	167.50 ± 9.22	-	442.82/478	83.576±14.0	1.0554E-05±1.6E-06
090424592	24	3.868:4.032	COMP	0.6368 ± 0.1740	−0.733 ± 0.070	-	134.70 ± 7.01	-	477.0/478	92.351±19.0	9.5375E-06±1.8E-06
090424592	25	4.032:4.141	COMP	0.5341 ± 0.0741	−0.584 ± 0.054	-	299.80 ± 19.00	-	443.53/478	106.64±9.9	2.1256E-05±1.6E-06
090424592	26	4.141:4.218	COMP	0.6336 ± 0.0935	−0.429 ± 0.057	-	289.90 ± 16.40	-	480.36/478	110.76±11.0	2.3152E-05±2.0E-06
090424592	27	4.218:4.318	COMP	1.3210 ± 0.2830	−0.461 ± 0.067	-	162.00 ± 7.40	-	441.39/478	155.02±23.0	1.9941E-05±2.6E-06
090424592	28	4.318:4.430	COMP	0.6891 ± 0.1710	−0.610 ± 0.068	-	163.80 ± 9.03	-	456.67/478	96.890±17.0	1.1997E-05±2.0E-06
090424592	29	4.430:4.552	COMP	2.1640 ± 0.6430	−0.292 ± 0.079	-	118.70 ± 4.32	-	475.89/478	158.49±34.0	1.6586E-05±3.4E-06
090424592	30	4.552:4.678	COMP	0.7635 ± 0.1720	−0.662 ± 0.066	-	166.90 ± 9.34	-	530.52/478	115.54±18.0	1.4263E-05±2.0E-06

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GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
090424592	31	4.678:4.790	COMP	1.6110 ± 0.4930	−0.560 ± 0.077	-	116.00 ± 4.85	-	491.44/478	166.74±37.0	1.6145E-05±3.5E-06
090424592	32	4.790:4.928	COMP	0.6978 ± 0.1540	−0.608 ± 0.067	-	177.40 ± 10.30	-	479.07/478	103.13±15.0	1.3583E-05±1.8E-06
090424592	33	4.928:5.294	PL	0.0173 ± 0.0063	−1.802 ± 0.025	-	-	-	806.86/479	13.308±4.9	1.3206E-06±4.8E-07
090424592	34	5.294:8.879	PL	0.0064 ± 0.0024	−1.943 ± 0.028	-	-	-	611.93/479	5.8975±2.2	4.7571E-07±1.8E-07
090424592	35	8.879:19.456	none	-	-	-	-	-	-	-	-
090528516	1	-6.144:8.064	PL	0.0011 ± 0.0004	−1.427 ± 0.023	-	-	-	850.97/479	0.56880±0.23	1.0266E-07±4.0E-08
090528516	2	8.064:10.077	COMP	0.0447 ± 0.0094	−0.887 ± 0.061	-	282.10 ± 29.00	-	492.04/478	11.161±1.8	1.8109E-06±2.6E-07
090528516	3	10.077:12.531	COMP	0.0495 ± 0.0112	−0.843 ± 0.063	-	235.30 ± 20.80	-	534.36/478	10.967±1.9	1.6140E-06±2.5E-07
090528516	4	12.531:16.200	COMP	0.0244 ± 0.0075	−1.049 ± 0.063	-	221.20 ± 24.30	-	544.18/478	6.6171±1.7	8.4484E-07±2.1E-07
090528516	5	16.200:20.575	COMP	0.0347 ± 0.0093	−1.193 ± 0.063	-	201.80 ± 25.50	-	622.36/478	10.849±2.2	1.2246E-06±2.2E-07
090528516	6	20.575:24.849	COMP	0.0401 ± 0.0111	−1.114 ± 0.065	-	184.50 ± 19.70	-	531.31/478	11.033±2.4	1.2270E-06±2.4E-07
090528516	7	24.849:29.068	COMP	0.0408 ± 0.0099	−1.107 ± 0.062	-	212.40 ± 24.30	-	525.94/478	11.650±2.1	1.4112E-06±2.2E-07
090528516	8	29.068:31.354	COMP	0.0749 ± 0.0196	−0.917 ± 0.070	-	181.20 ± 15.60	-	567.18/478	16.040±3.0	1.9135E-06±3.3E-07
090528516	9	31.354:36.595	COMP	0.0273 ± 0.0100	−1.139 ± 0.070	-	159.40 ± 16.60	-	618.16/478	7.3891±2.3	7.4747E-07±2.2E-07
090528516	10	36.595:45.567	PL	0.0027 ± 0.0010	−1.650 ± 0.023	-	-	-	744.97/479	1.7800±0.67	2.2411E-07±8.3E-08
090528516	11	45.567:48.783	COMP	0.0450 ± 0.0164	−0.759 ± 0.080	-	164.10 ± 12.30	-	470.19/478	7.5649±2.3	8.9311E-07±2.6E-07
090528516	12	48.783:85.181	none	-	-	-	-	-	-	-	-
090528516	13	85.181:116.736	none	-	-	-	-	-	-	-	-
090530760	1	-1.024:3.854	COMP	0.0459 ± 0.0090	−0.295 ± 0.090	-	237.60 ± 15.00	-	577.64/481	6.2276±0.75	1.1641E-06±1.2E-07
090530760	2	3.854:5.428	COMP	0.2336 ± 0.0647	−0.078 ± 0.104	-	157.20 ± 7.38	-	545.61/481	17.539±3.1	2.4436E-06±3.9E-07
090530760	3	5.428:7.053	COMP	0.2297 ± 0.0820	−0.040 ± 0.109	-	136.80 ± 5.92	-	580.03/481	14.211±3.7	1.7700E-06±4.4E-07
090530760	4	7.053:8.522	COMP	0.4739 ± 0.1770	0.040 ± 0.114	-	122.90 ± 4.94	-	497.71/481	23.553±6.0	2.7182E-06±6.7E-07
090530760	5	8.522:9.851	PL	0.0049 ± 0.0014	−1.478 ± 0.025	-	-	-	849.71/482	2.7188±0.82	4.5013E-07±1.3E-07
090530760	6	9.851:11.263	PL	0.0042 ± 0.0016	−1.523 ± 0.024	-	-	-	795.83/482	2.4368±0.92	3.7555E-07±1.4E-07
090530760	7	11.263:12.882	PL	0.0050 ± 0.0017	−1.575 ± 0.024	-	-	-	883.27/482	3.0175±1.0	4.2733E-07±1.4E-07
090530760	8	12.882:14.518	none	-	-	-	-	-	-	-	-
090530760	9	14.518:16.206	PL	0.0056 ± 0.0018	−1.606 ± 0.027	-	-	-	854.02/482	3.4698±1.1	4.6730E-07±1.5E-07
090530760	10	16.206:18.105	none	-	-	-	-	-	-	-	-
090530760	11	18.105:20.264	none	-	-	-	-	-	-	-	-
090530760	12	20.264:22.458	SBPL	0.0386 ± 0.0153	−0.591 ± 0.190	−2.997 ± 0.283	65.39 ± 12.80	57.86 ± 10.50	558.14/480	19.693±7.6	1.6448E-06±5.8E-07
090530760	13	22.458:25.182	none	-	-	-	-	-	-	-	-
090530760	14	25.182:27.806	none	-	-	-	-	-	-	-	-
090530760	15	27.806:31.254	none	-	-	-	-	-	-	-	-
090530760	16	31.254:34.506	none	-	-	-	-	-	-	-	-
090530760	17	34.506:38.230	none	-	-	-	-	-	-	-	-
090530760	18	38.230:41.795	none	-	-	-	-	-	-	-	-
090530760	19	41.795:46.001	none	-	-	-	-	-	-	-	-
090530760	20	46.001:50.922	none	-	-	-	-	-	-	-	-
090530760	21	50.922:55.337	none	-	-	-	-	-	-	-	-
090530760	22	55.337:60.110	none	-	-	-	-	-	-	-	-
090530760	23	60.110:64.928	none	-	-	-	-	-	-	-	-
090530760	24	64.928:68.479	none	-	-	-	-	-	-	-	-
090530760	25	68.479:71.551	none	-	-	-	-	-	-	-	-
090530760	26	71.551:74.654	none	-	-	-	-	-	-	-	-
090530760	27	74.654:77.868	none	-	-	-	-	-	-	-	-
090530760	28	77.868:80.995	none	-	-	-	-	-	-	-	-
090530760	29	80.995:84.364	none	-	-	-	-	-	-	-	-
090530760	30	84.364:88.312	none	-	-	-	-	-	-	-	-
090530760	31	88.312:92.914	none	-	-	-	-	-	-	-	-
090530760	32	92.914:98.808	none	-	-	-	-	-	-	-	-
090530760	33	98.808:105.360	none	-	-	-	-	-	-	-	-
090530760	34	105.360:112.867	none	-	-	-	-	-	-	-	-
090530760	35	112.867:121.936	none	-	-	-	-	-	-	-	-

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
090530760	36	121.936:132.402	none	-	-	-	-	-	-	-	-
090530760	37	132.402:150.320	none	-	-	-	-	-	-	-	-
090530760	38	150.320:202.752	none	-	-	-	-	-	-	-	-
090618353	1	-1.024:64.342	BAND	0.0539 ± 0.0039	−0.805 ± 0.033	−2.186 ± 0.042	168.10 ± 6.88	101.05 ± 4.52	1488.7/237	10.005±0.41	1.4415E-06±4.9E-08
090618353	2	64.342:64.555	COMP	0.2433 ± 0.0358	−1.068 ± 0.060	-	421.40 ± 56.60	-	260.66/238	80.944±9.1	1.4487E-05±1.1E-06
090618353	3	64.555:64.777	SBPL	0.1731 ± 0.0254	−1.033 ± 0.091	−2.049 ± 0.101	342.94 ± 141.21	150.10 ± 38.30	235.45/237	65.364±8.1	1.1758E-05±1.1E-06
090618353	4	64.777:65.008	COMP	0.2065 ± 0.0315	−0.991 ± 0.063	-	416.10 ± 53.50	-	250.05/238	64.310±7.3	1.2174E-05±9.9E-07
090618353	5	65.008:65.239	COMP	0.2554 ± 0.0417	−1.017 ± 0.065	-	340.10 ± 40.30	-	222.16/238	76.599±9.2	1.2808E-05±1.1E-06
090618353	6	65.239:65.445	COMP	0.1542 ± 0.0248	−1.129 ± 0.060	-	506.60 ± 90.60	-	272.15/238	56.134±7.1	1.0301E-05±9.7E-07
090618353	7	65.445:65.662	COMP	0.2580 ± 0.0464	−1.007 ± 0.068	-	336.00 ± 42.40	-	226.33/238	76.416±9.9	1.2776E-05±1.2E-06
090618353	8	65.662:65.893	COMP	0.2545 ± 0.0494	−1.028 ± 0.069	-	302.60 ± 39.00	-	233.14/238	74.410±10.0	1.1577E-05±1.1E-06
090618353	9	65.893:66.120	COMP	0.2907 ± 0.0526	−0.938 ± 0.071	-	291.60 ± 31.60	-	221.95/238	77.051±9.6	1.2402E-05±1.1E-06
090618353	10	66.120:66.367	BAND	0.2080 ± 0.0460	−1.071 ± 0.085	−2.387 ± 0.165	339.90 ± 73.70	241.16 ± 55.58	256.05/237	65.770±8.7	1.0824E-05±1.0E-06
090618353	11	66.367:66.598	COMP	0.1874 ± 0.0366	−1.150 ± 0.067	-	343.20 ± 55.90	-	223.19/238	63.905±9.1	9.7425E-06±1.0E-06
090618353	12	66.598:66.835	COMP	0.2776 ± 0.0523	−0.984 ± 0.071	-	278.90 ± 31.40	-	253.67/238	75.697±10.0	1.1540E-05±1.1E-06
090618353	13	66.835:67.070	COMP	0.2235 ± 0.0414	−1.110 ± 0.066	-	321.10 ± 44.70	-	231.19/238	72.039±9.7	1.0944E-05±1.1E-06
090618353	14	67.070:67.309	COMP	0.3199 ± 0.0703	−0.981 ± 0.075	-	238.00 ± 26.70	-	256.16/238	82.159±12.0	1.1383E-05±1.3E-06
090618353	15	67.309:67.562	BAND	0.4071 ± 0.1250	−0.888 ± 0.131	−2.331 ± 0.127	180.80 ± 31.10	120.97 ± 21.24	229.18/237	85.545±13.0	1.1813E-05±1.4E-06
090618353	16	67.562:67.807	COMP	0.1938 ± 0.0409	−1.103 ± 0.070	-	308.30 ± 46.20	-	256.39/238	61.350±9.3	9.1741E-06±1.0E-06
090618353	17	67.807:68.041	COMP	0.1487 ± 0.0322	−1.149 ± 0.069	-	342.00 ± 58.90	-	287.45/238	50.634±8.1	7.7107E-06±9.5E-07
090618353	18	68.041:68.262	COMP	0.2450 ± 0.0552	−1.120 ± 0.072	-	265.30 ± 37.80	-	236.41/238	75.798±12.0	1.0344E-05±1.2E-06
090618353	19	68.262:68.495	COMP	0.2102 ± 0.0452	−1.188 ± 0.070	-	283.10 ± 43.50	-	258.64/238	71.257±11.0	9.6353E-06±1.1E-06
090618353	20	68.495:68.740	COMP	0.2670 ± 0.0576	−1.140 ± 0.073	-	244.90 ± 32.20	-	279.82/238	82.565±12.0	1.0666E-05±1.2E-06
090618353	21	68.740:68.968	BAND	0.2602 ± 0.0799	−0.951 ± 0.131	−2.146 ± 0.140	196.40 ± 43.30	114.88 ± 25.71	268.93/237	61.403±9.6	8.9081E-06±1.1E-06
090618353	22	68.968:69.191	BAND	0.6670 ± 0.2090	−0.744 ± 0.139	−2.462 ± 0.183	157.70 ± 21.90	110.88 ± 17.45	256.63/237	109.86±17.0	1.4669E-05±1.8E-06
090618353	23	69.191:69.411	COMP	0.2255 ± 0.0429	−1.173 ± 0.066	-	316.20 ± 47.40	-	256.46/238	77.209±11.0	1.1131E-05±1.1E-06
090618353	24	69.411:69.649	COMP	0.1536 ± 0.0311	−1.155 ± 0.067	-	351.30 ± 59.00	-	253.25/238	52.934±8.0	8.1283E-06±9.4E-07
090618353	25	69.649:69.879	COMP	0.2648 ± 0.0675	−0.996 ± 0.084	-	214.70 ± 24.90	-	228.48/238	66.535±11.0	8.5768E-06±1.2E-06
090618353	26	69.879:70.116	COMP	0.2626 ± 0.0598	−1.131 ± 0.075	-	233.80 ± 30.30	-	232.81/238	79.260±13.0	1.0033E-05±1.2E-06
090618353	27	70.116:70.389	COMP	0.4628 ± 0.1290	−0.966 ± 0.088	-	172.90 ± 17.30	-	262.04/238	102.83±18.0	1.1695E-05±1.7E-06
090618353	28	70.389:70.636	COMP	0.2575 ± 0.0659	−1.071 ± 0.082	-	213.00 ± 26.50	-	265.52/238	70.368±12.0	8.7084E-06±1.2E-06
090618353	29	70.636:70.909	COMP	0.2438 ± 0.0580	−1.084 ± 0.076	-	230.10 ± 29.20	-	231.1/238	69.417±11.0	8.9292E-06±1.1E-06
090618353	30	70.909:71.160	COMP	0.3129 ± 0.0992	−0.952 ± 0.093	-	174.10 ± 19.00	-	247.62/238	68.530±14.0	7.8724E-06±1.4E-06
090618353	31	71.160:71.430	COMP	0.2645 ± 0.0734	−1.047 ± 0.086	-	188.70 ± 21.70	-	269.36/238	67.268±13.0	7.8251E-06±1.2E-06
090618353	32	71.430:71.706	COMP	0.3940 ± 0.1210	−1.043 ± 0.090	-	160.10 ± 17.30	-	260.37/238	93.735±19.0	9.8682E-06±1.6E-06
090618353	33	71.706:71.977	COMP	0.3201 ± 0.1030	−1.110 ± 0.091	-	165.30 ± 20.30	-	286.42/238	84.164±18.0	8.8132E-06±1.5E-06
090618353	34	71.977:72.290	COMP	0.3209 ± 0.1020	−0.991 ± 0.094	-	164.70 ± 18.00	-	266.57/238	72.160±15.0	7.8790E-06±1.3E-06
090618353	35	72.290:72.655	COMP	0.1558 ± 0.0496	−1.163 ± 0.089	-	182.50 ± 25.30	-	260.32/238	45.389±10.0	4.9256E-06±9.3E-07
090618353	36	72.655:73.097	COMP	0.2439 ± 0.0869	−1.048 ± 0.098	-	147.20 ± 16.50	-	287.95/238	56.472±13.0	5.6373E-06±1.1E-06
090618353	37	73.097:73.618	SBPL	0.0596 ± 0.0136	−1.088 ± 0.204	−2.112 ± 0.064	114.08 ± 39.18	53.85 ± 14.50	274.69/237	31.367±7.0	3.4441E-06±6.8E-07
090618353	38	73.618:74.257	PL	0.0120 ± 0.0042	−1.720 ± 0.036	-	-	-	324.03/239	8.3443±3.0	9.4231E-07±3.3E-07
090618353	39	74.257:75.257	PL	0.0162 ± 0.0034	−1.769 ± 0.034	-	-	-	348.54/239	11.901±2.8	1.2469E-06±2.6E-07
090618353	40	75.257:76.463	PL	0.0088 ± 0.0030	−1.724 ± 0.034	-	-	-	334.58/239	6.1955±2.2	6.9548E-07±2.3E-07
090618353	41	76.463:77.317	SBPL	0.0402 ± 0.0141	−1.223 ± 0.175	−2.379 ± 0.223	81.42 ± 32.64	61.70 ± 21.10	260.8/237	23.540±7.8	2.1247E-06±6.3E-07
090618353	42	77.317:77.945	SBPL	0.0544 ± 0.0118	−1.236 ± 0.187	−2.072 ± 0.061	121.47 ± 51.98	53.71 ± 16.90	254.06/237	31.032±6.6	3.2797E-06±6.1E-07
090618353	43	77.945:78.482	SBPL	0.0707 ± 0.0219	−1.091 ± 0.150	−2.486 ± 0.261	100.30 ± 33.76	79.03 ± 23.20	262.33/237	33.139±9.5	3.3892E-06±8.4E-07
090618353	44	78.482:79.115	SBPL	0.1053 ± 0.0355	−1.294 ± 0.113	−2.920 ± 0.443	93.49 ± 30.57	101.40 ± 30.70	297.14/237	54.690±17.0	4.6635E-06±1.2E-06
090618353	45	79.115:79.706	SBPL	0.0560 ± 0.0122	−0.981 ± 0.349	−2.044 ± 0.061	90.98 ± 41.55	34.68 ± 11.50	271.49/237	34.133±7.4	3.4944E-06±6.6E-07
090618353	46	79.706:80.155	PL	0.0191 ± 0.0044	−1.614 ± 0.035	-	-	-	339.81/239	11.928±2.9	1.5945E-06±3.6E-07
090618353	47	80.155:80.538	SBPL	0.0755 ± 0.0174	−0.779 ± 0.259	−2.118 ± 0.070	107.57 ± 35.03	46.65 ± 10.90	268.21/237	36.585±8.2	4.2529E-06±8.4E-07
090618353	48	80.538:80.874	COMP	0.2180 ± 0.0693	−1.149 ± 0.089	-	169.60 ± 21.90	-	254.86/238	60.928±13.0	6.3788E-06±1.2E-06
090618353	49	80.874:81.227	SBPL	0.0681 ± 0.0171	−0.973 ± 0.252	−2.096 ± 0.070	102.95 ± 41.48	44.56 ± 12.10	273.86/237	37.049±9.1	4.0001E-06±8.7E-07
090618353	50	81.227:81.627	COMP	0.2328 ± 0.0815	−1.117 ± 0.094	-	146.30 ± 16.70	-	239.98/238	59.185±14.0	5.7550E-06±1.2E-06

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
090618353	51	81.627:82.008	COMP	0.1212 ± 0.0420	−1.285 ± 0.087	-	171.50 ± 27.10	-	234.73/238	40.813±10.0	4.0728E-06±9.0E-07
090618353	52	82.008:82.381	COMP	0.1806 ± 0.0581	−1.148 ± 0.090	-	169.10 ± 22.00	-	271.54/238	50.368±11.0	5.2667E-06±9.9E-07
090618353	53	82.381:82.788	BAND	0.1692 ± 0.0662	−0.871 ± 0.171	−2.100 ± 0.068	126.70 ± 24.30	73.16 ± 13.23	275.82/237	29.921±6.4	3.7820E-06±7.2E-07
090618353	54	82.788:83.219	SBPL	0.0659 ± 0.0150	−0.824 ± 0.285	−2.072 ± 0.072	109.46 ± 44.62	43.57 ± 11.60	270.59/237	33.433±7.4	3.8549E-06±7.5E-07
090618353	55	83.219:83.655	COMP	0.2152 ± 0.0854	−1.022 ± 0.105	-	138.30 ± 15.10	-	291.02/238	46.851±13.0	4.5374E-06±1.1E-06
090618353	56	83.655:84.062	COMP	0.2023 ± 0.0664	−1.202 ± 0.088	-	162.60 ± 21.90	-	250.61/238	59.910±13.0	6.0044E-06±1.1E-06
090618353	57	84.062:84.365	COMP	0.2216 ± 0.0605	−1.124 ± 0.083	-	193.00 ± 24.30	-	275.03/238	62.554±12.0	7.1274E-06±1.1E-06
090618353	58	84.365:84.696	COMP	0.3167 ± 0.0975	−1.085 ± 0.088	-	162.10 ± 18.50	-	281.14/238	80.049±16.0	8.3598E-06±1.4E-06
090618353	59	84.696:84.995	SBPL	0.0960 ± 0.0188	−1.268 ± 0.103	−2.162 ± 0.099	192.89 ± 69.13	110.10 ± 31.80	228.66/237	44.414±8.4	5.5703E-06±8.9E-07
090618353	60	84.995:85.352	SBPL	0.0872 ± 0.0177	−1.237 ± 0.141	−2.162 ± 0.061	130.82 ± 37.14	76.26 ± 20.40	255.93/237	43.899±8.8	4.9122E-06±8.7E-07
090618353	61	85.352:85.746	COMP	0.2790 ± 0.0958	−0.960 ± 0.099	-	151.50 ± 15.50	-	263.56/238	58.067±13.0	6.0743E-06±1.2E-06
090618353	62	85.746:86.166	COMP	0.3232 ± 0.1180	−0.887 ± 0.104	-	140.70 ± 13.30	-	278.96/238	58.939±14.0	6.0098E-06±1.3E-06
090618353	63	86.166:86.604	PL	0.0143 ± 0.0045	−1.662 ± 0.035	-	-	-	291.12/239	9.3577±3.1	1.1592E-06±3.6E-07
090618353	64	86.604:87.021	BAND	0.1464 ± 0.0557	−1.104 ± 0.166	−2.030 ± 0.087	133.60 ± 36.20	72.56 ± 18.58	286.1/237	36.680±7.3	4.3931E-06±7.6E-07
090618353	65	87.021:87.386	COMP	0.2149 ± 0.0709	−1.102 ± 0.093	-	156.40 ± 17.80	-	260.12/238	54.808±12.0	5.5716E-06±1.1E-06
090618353	66	87.386:87.724	SBPL	0.0925 ± 0.0183	−1.140 ± 0.133	−2.171 ± 0.067	147.44 ± 38.12	83.84 ± 20.20	239.14/237	41.753±8.1	5.1152E-06±8.7E-07
090618353	67	87.724:88.107	COMP	0.1995 ± 0.0631	−1.132 ± 0.088	-	173.30 ± 22.40	-	247.36/238	54.924±12.0	5.8609E-06±1.0E-06
090618353	68	88.107:88.543	SBPL	0.0811 ± 0.0159	−0.965 ± 0.218	−2.097 ± 0.074	123.23 ± 49.50	53.45 ± 13.90	279.29/237	39.686±7.6	4.6379E-06±7.6E-07
090618353	69	88.543:89.004	SBPL	0.0509 ± 0.0124	−1.136 ± 0.172	−2.017 ± 0.074	159.65 ± 65.20	62.02 ± 18.80	264.34/237	25.145±5.9	3.0658E-06±6.4E-07
090618353	70	89.004:89.568	SBPL	0.0481 ± 0.0108	−1.206 ± 0.228	−1.955 ± 0.073	147.98 ± 72.37	46.86 ± 18.70	282.26/237	27.209±5.9	3.0889E-06±5.8E-07
090618353	71	89.568:90.248	SBPL	0.0422 ± 0.0102	−0.836 ± 0.339	−1.994 ± 0.056	123.05 ± 51.59	36.67 ± 10.80	288.8/237	22.867±5.5	2.6246E-06±5.5E-07
090618353	72	90.248:90.969	SBPL	0.1083 ± 0.0388	−1.236 ± 0.086	−3.815 ± 0.977	120.21 ± 39.59	157.90 ± 44.90	238.39/237	46.600±16.0	4.2276E-06±1.3E-06
090618353	73	90.969:91.702	SBPL	0.0375 ± 0.0128	−1.199 ± 0.207	−2.238 ± 0.184	82.07 ± 39.46	53.04 ± 20.30	257.94/237	22.405±7.3	2.1131E-06±6.1E-07
090618353	74	91.702:92.853	PL	0.0107 ± 0.0032	−1.730 ± 0.033	-	-	-	328.17/239	7.5736±2.3	8.4303E-07±2.5E-07
090618353	75	92.853:94.286	PL	0.0110 ± 0.0018	−1.700 ± 0.031	-	-	-	365.83/239	7.4871±1.4	8.7358E-07±1.3E-07
090618353	76	94.286:96.641	SBPL	0.0142 ± 0.0045	−0.909 ± 0.340	−2.065 ± 0.097	75.77 ± 33.85	32.66 ± 10.90	351.67/237	8.8167±2.8	8.8255E-07±2.6E-07
090618353	77	96.641:110.742	PL	0.0048 ± 0.0009	−1.831 ± 0.016	-	-	-	3354.6/239	3.8080±0.73	3.6343E-07±6.7E-08
090618353	78	110.742:112.177	PL	0.0098 ± 0.0031	−1.873 ± 0.035	-	-	-	497.01/239	8.1165±2.7	7.2763E-07±2.3E-07
090618353	79	112.177:113.541	none	-	-	-	-	-	-	-	-
090618353	80	113.541:114.571	PL	0.0110 ± 0.0040	−1.903 ± 0.037	-	-	-	494.77/239	9.4780±3.6	8.1351E-07±3.0E-07
090618353	81	114.571:115.539	PL	0.0172 ± 0.0051	−1.999 ± 0.040	-	-	-	511.27/239	16.848±5.3	1.2665E-06±3.7E-07
090618353	82	115.539:116.865	PL	0.0157 ± 0.0047	−2.030 ± 0.038	-	-	-	457.26/239	16.021±5.1	1.1561E-06±3.5E-07
090618353	83	116.865:118.808	PL	0.0130 ± 0.0030	−1.985 ± 0.035	-	-	-	780.67/239	12.470±3.2	9.5527E-07±2.2E-07
090618353	84	118.808:174.080	SBPL	0.0016 ± 0.0005	−2.077 ± 0.026	−1.053 ± 0.103	-	360.90 ± 94.90	2727.2/237	1.8066±0.50	1.4411E-07±3.9E-08
090626189	1	-4.352:1.792	COMP	0.0204 ± 0.0043	−0.674 ± 0.088	-	319.30 ± 37.80	-	365.6/357	4.5028±0.62	8.9608E-07±1.0E-07
090626189	2	1.792:2.816	BAND	0.2594 ± 0.0427	−0.328 ± 0.082	−2.408 ± 0.119	226.00 ± 16.90	144.22 ± 12.23	386.58/356	35.772±2.8	7.2406E-06±4.4E-07
090626189	3	2.816:3.840	BAND	0.5259 ± 0.1000	−0.253 ± 0.099	−2.378 ± 0.114	131.10 ± 8.46	83.44 ± 6.03	363.75/356	42.342±4.6	6.1955E-06±5.5E-07
090626189	4	3.840:4.864	COMP	0.2759 ± 0.0755	−0.743 ± 0.071	-	130.50 ± 6.80	-	396.19/357	39.790±7.7	4.0074E-06±7.2E-07
090626189	5	4.864:5.888	SBPL	0.0233 ± 0.0081	−0.701 ± 0.267	−2.214 ± 0.128	77.81 ± 26.03	40.69 ± 10.20	343.69/356	12.574±4.3	1.2928E-06±4.1E-07
090626189	6	5.888:8.960	PL	0.0078 ± 0.0023	−1.846 ± 0.034	-	-	-	493.53/358	6.3322±1.9	5.8778E-07±1.7E-07
090626189	7	8.960:16.128	PL	0.0084 ± 0.0014	−1.800 ± 0.027	-	-	-	359.75/358	6.4308±1.2	6.3899E-07±1.1E-07
090626189	8	16.128:17.152	COMP	0.0577 ± 0.0164	−1.294 ± 0.072	-	218.40 ± 37.60	-	371.71/357	20.942±4.3	2.3361E-06±4.1E-07
090626189	9	17.152:18.176	none	-	-	-	-	-	-	-	-
090626189	10	18.176:19.200	COMP	0.1193 ± 0.0286	−1.045 ± 0.069	-	193.10 ± 20.00	-	388.7/357	30.619±4.9	3.6059E-06±4.7E-07
090626189	11	19.200:21.248	COMP	0.0357 ± 0.0091	−1.330 ± 0.067	-	276.50 ± 60.30	-	348.13/357	14.206±2.6	1.7224E-06±2.6E-07
090626189	12	21.248:22.272	COMP	0.1020 ± 0.0107	−0.927 ± 0.039	-	425.60 ± 37.00	-	330.48/357	30.521±2.2	6.1354E-06±3.5E-07
090626189	13	22.272:24.320	COMP	0.0303 ± 0.0065	−1.243 ± 0.061	-	393.50 ± 88.70	-	399.81/357	11.704±1.8	1.7512E-06±2.2E-07
090626189	14	24.320:26.368	PL	0.0052 ± 0.0018	−1.626 ± 0.031	-	-	-	411.08/358	3.3063±1.2	4.3145E-07±1.5E-07
090626189	15	26.368:33.537	none	-	-	-	-	-	-	-	-
090626189	16	33.537:34.561	COMP	0.0799 ± 0.0177	−0.972 ± 0.070	-	254.90 ± 30.10	-	425.56/357	20.898±3.1	3.0297E-06±3.7E-07
090626189	17	34.561:35.585	COMP	0.1229 ± 0.0144	−0.871 ± 0.042	-	331.50 ± 24.50	-	397.3/357	32.255±2.6	5.8489E-06±3.7E-07
090626189	18	35.585:38.657	PL	0.0053 ± 0.0019	−1.731 ± 0.034	-	-	-	385.76/358	3.7535±1.4	4.1495E-07±1.4E-07
090626189	19	38.657:43.777	PL	0.0060 ± 0.0016	−1.791 ± 0.026	-	-	-	461.37/358	4.5546±1.3	4.5900E-07±1.2E-07

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
090626189	20	43.777:44.801	COMP	0.0269 ± 0.0069	−1.300 ± 0.063	-	458.90 ± 137.00	-	350.07/357	11.255±2.3	1.6913E-06±3.0E-07
090626189	21	44.801:45.825	SBPL	0.0215 ± 0.0080	−1.014 ± 0.206	−2.134 ± 0.164	94.32 ± 43.30	51.02 ± 17.50	400.94/356	11.318±4.0	1.2294E-06±4.0E-07
090626189	22	45.825:47.873	none	-	-	-	-	-	-	-	-
090626189	23	47.873:55.041	none	-	-	-	-	-	-	-	-
090626189	24	55.041:78.593	none	-	-	-	-	-	-	-	-
090718762	1	-1.024:10.913	none	-	-	-	-	-	-	-	-
090718762	2	10.913:13.869	COMP	0.0346 ± 0.0095	−0.925 ± 0.085	-	236.80 ± 31.50	-	484.89/477	8.3798±1.6	1.1886E-06±1.9E-07
090718762	3	13.869:15.281	COMP	0.1775 ± 0.0705	−0.454 ± 0.104	-	130.20 ± 7.90	-	515.18/477	17.412±5.1	1.8885E-06±5.2E-07
090718762	4	15.281:16.454	none	-	-	-	-	-	-	-	-
090718762	5	16.454:19.694	none	-	-	-	-	-	-	-	-
090718762	6	19.694:20.897	COMP	0.0215 ± 0.0079	−1.419 ± 0.068	-	270.50 ± 72.60	-	511.9/477	9.4872±3.0	1.0735E-06±3.1E-07
090718762	7	20.897:21.439	COMP	0.1017 ± 0.0231	−0.962 ± 0.067	-	239.90 ± 26.40	-	504.39/477	25.748±4.2	3.6133E-06±5.1E-07
090718762	8	21.439:21.855	COMP	0.1810 ± 0.0383	−0.810 ± 0.067	-	225.30 ± 19.70	-	532.95/477	37.989±5.5	5.5079E-06±6.7E-07
090718762	9	21.855:22.265	COMP	0.2008 ± 0.0425	−0.670 ± 0.069	-	213.10 ± 15.50	-	477.07/477	35.435±5.1	5.2453E-06±6.6E-07
090718762	10	22.265:22.700	COMP	0.1194 ± 0.0308	−0.827 ± 0.072	-	212.30 ± 19.60	-	579.85/477	24.806±4.8	3.4237E-06±5.9E-07
090718762	11	22.700:23.400	COMP	0.1207 ± 0.0359	−0.794 ± 0.082	-	177.30 ± 15.60	-	554.15/477	22.064±4.7	2.7176E-06±5.2E-07
090718762	12	23.400:24.924	PL	0.0053 ± 0.0019	−1.554 ± 0.028	-	-	-	618.0/478	3.1711±1.1	4.6510E-07±1.6E-07
090718762	13	24.924:32.768	none	-	-	-	-	-	-	-	-
090719063	1	-1.024:1.071	COMP	0.0380 ± 0.0049	−0.051 ± 0.095	-	432.40 ± 30.70	-	395.65/357	7.8238±0.62	2.6507E-06±1.6E-07
090719063	2	1.071:1.662	COMP	0.2972 ± 0.0623	0.204 ± 0.105	-	221.40 ± 11.00	-	374.23/357	25.936±3.1	5.2921E-06±5.2E-07
090719063	3	1.662:2.168	COMP	0.3133 ± 0.0825	0.174 ± 0.113	-	190.20 ± 9.69	-	389.92/357	23.097±3.8	4.0624E-06±6.0E-07
090719063	4	2.168:2.701	COMP	0.3692 ± 0.1020	0.130 ± 0.112	-	176.10 ± 8.70	-	386.86/357	25.712±4.5	4.1692E-06±6.6E-07
090719063	5	2.701:3.213	COMP	0.2335 ± 0.0508	−0.248 ± 0.088	-	218.50 ± 13.60	-	391.67/357	28.374±3.8	5.0191E-06±5.7E-07
090719063	6	3.213:3.723	COMP	0.1402 ± 0.0256	−0.367 ± 0.078	-	286.70 ± 20.90	-	365.24/357	23.309±2.7	4.9613E-06±4.7E-07
090719063	7	3.723:4.165	COMP	0.1612 ± 0.0244	−0.398 ± 0.071	-	328.40 ± 23.50	-	402.49/357	30.181±2.9	7.0685E-06±5.3E-07
090719063	8	4.165:4.509	COMP	0.1203 ± 0.0177	−0.469 ± 0.068	-	422.30 ± 36.90	-	382.48/357	27.586±2.7	7.4990E-06±5.7E-07
090719063	9	4.509:4.775	COMP	0.1978 ± 0.0284	−0.386 ± 0.068	-	358.50 ± 25.20	-	370.98/357	39.171±3.7	9.8724E-06±7.3E-07
090719063	10	4.775:5.023	COMP	0.3522 ± 0.0592	−0.309 ± 0.075	-	267.60 ± 16.60	-	397.29/357	53.292±5.5	1.0965E-05±9.0E-07
090719063	11	5.023:5.265	COMP	0.3982 ± 0.0740	−0.176 ± 0.083	-	241.20 ± 13.80	-	363.9/357	50.014±5.7	9.8751E-06±9.2E-07
090719063	12	5.265:5.530	COMP	0.3384 ± 0.0618	−0.331 ± 0.075	-	251.90 ± 15.90	-	367.29/357	49.566±5.7	9.6098E-06±8.8E-07
090719063	13	5.530:5.799	COMP	0.2841 ± 0.0564	−0.334 ± 0.080	-	244.70 ± 16.00	-	334.62/357	40.729±5.2	7.6992E-06±8.2E-07
090719063	14	5.799:6.067	COMP	0.2018 ± 0.0474	−0.391 ± 0.085	-	235.90 ± 17.60	-	387.18/357	29.442±4.7	5.2820E-06±7.3E-07
090719063	15	6.067:6.343	COMP	0.3025 ± 0.0628	−0.451 ± 0.079	-	237.50 ± 16.90	-	367.93/357	46.649±6.1	8.2216E-06±8.8E-07
090719063	16	6.343:6.622	COMP	0.3771 ± 0.0918	−0.467 ± 0.083	-	199.40 ± 13.80	-	428.06/357	52.035±8.0	7.9023E-06±1.0E-06
090719063	17	6.622:6.916	COMP	0.2861 ± 0.0766	−0.355 ± 0.090	-	188.80 ± 12.00	-	376.49/357	33.875±6.2	5.1070E-06±8.5E-07
090719063	18	6.916:7.264	COMP	0.1467 ± 0.0439	−0.483 ± 0.090	-	201.50 ± 15.60	-	410.12/357	20.719±4.6	3.1559E-06±6.5E-07
090719063	19	7.264:7.732	COMP	0.3848 ± 0.1270	−0.370 ± 0.100	-	145.80 ± 8.66	-	374.18/357	37.360±8.3	4.5323E-06±9.3E-07
090719063	20	7.732:8.438	SBPL	0.0722 ± 0.0288	−0.918 ± 0.093	−3.566 ± 0.744	114.98 ± 31.58	127.60 ± 30.10	395.97/356	25.110±9.5	2.5901E-06±8.8E-07
090719063	21	8.438:9.249	none	-	-	-	-	-	-	-	-
090719063	22	9.249:10.233	none	-	-	-	-	-	-	-	-
090719063	23	10.233:11.416	none	-	-	-	-	-	-	-	-
090719063	24	11.416:13.505	none	-	-	-	-	-	-	-	-
090719063	25	13.505:29.696	none	-	-	-	-	-	-	-	-
090804940	1	-1.024:1.096	none	-	-	-	-	-	-	-	-
090804940	2	1.096:1.476	SBPL	0.1394 ± 0.0547	−0.764 ± 0.088	−3.871 ± 0.610	101.94 ± 19.40	116.30 ± 19.80	543.32/478	46.013±17.0	4.5398E-06±1.6E-06
090804940	3	1.476:1.794	COMP	0.6706 ± 0.2290	−0.356 ± 0.088	-	125.40 ± 5.60	-	512.46/479	56.142±14.0	6.0501E-06±1.5E-06
090804940	4	1.794:2.106	PL	0.0145 ± 0.0040	−1.532 ± 0.024	-	-	-	913.44/480	8.4587±2.4	1.2856E-06±3.5E-07
090804940	5	2.106:2.493	PL	0.0153 ± 0.0042	−1.611 ± 0.023	-	-	-	787.93/480	9.5645±2.7	1.2792E-06±3.5E-07
090804940	6	2.493:2.965	PL	0.0117 ± 0.0036	−1.589 ± 0.023	-	-	-	751.95/480	7.1972±2.3	9.9707E-07±3.0E-07
090804940	7	2.965:3.488	PL	0.0104 ± 0.0034	−1.591 ± 0.024	-	-	-	760.61/480	6.3911±2.1	8.8227E-07±2.8E-07
090804940	8	3.488:4.070	PL	0.0112 ± 0.0041	−1.696 ± 0.026	-	-	-	836.02/480	7.6591±2.8	8.9418E-07±3.2E-07
090804940	9	4.070:4.651	none	-	-	-	-	-	-	-	-
090804940	10	4.651:5.569	none	-	-	-	-	-	-	-	-

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
090804940	11	5.569:7.879	none	-	-	-	-	-	-	-	-
090804940	12	7.879:11.264	none	-	-	-	-	-	-	-	-
090809978	1	-2.048:2.205	COMP	0.0240 ± 0.0043	−0.477 ± 0.086	-	397.60 ± 44.40	-	561.74/479	5.3192±0.62	1.3793E-06±1.4E-07
090809978	2	2.205:2.786	BAND	0.2072 ± 0.0442	−0.242 ± 0.112	−2.138 ± 0.128	229.00 ± 23.80	127.58 ± 13.81	475.67/478	27.466±3.0	6.1689E-06±5.6E-07
090809978	3	2.786:3.267	COMP	0.1164 ± 0.0204	−0.626 ± 0.065	-	331.00 ± 30.20	-	490.58/479	25.327±3.1	5.3084E-06±5.5E-07
090809978	4	3.267:3.764	BAND	0.1970 ± 0.0439	−0.538 ± 0.104	−2.114 ± 0.149	205.90 ± 26.00	114.51 ± 16.04	517.48/478	31.119±4.1	5.7865E-06±6.5E-07
090809978	5	3.764:4.286	COMP	0.1810 ± 0.0404	−0.664 ± 0.072	-	221.30 ± 17.50	-	491.37/479	32.453±4.9	4.9559E-06±6.5E-07
090809978	6	4.286:4.884	COMP	0.2257 ± 0.0659	−0.609 ± 0.083	-	168.90 ± 11.90	-	513.34/479	32.350±6.6	4.1018E-06±7.7E-07
090809978	7	4.884:5.590	COMP	0.1003 ± 0.0306	−0.964 ± 0.074	-	189.90 ± 20.00	-	496.93/479	23.198±5.4	2.7984E-06±5.9E-07
090809978	8	5.590:6.552	COMP	0.1081 ± 0.0408	−0.769 ± 0.085	-	155.40 ± 12.60	-	515.28/479	17.851±5.3	2.0196E-06±5.7E-07
090809978	9	6.552:7.733	SBPL	0.0205 ± 0.0077	−0.944 ± 0.161	−2.113 ± 0.140	108.05 ± 43.84	54.67 ± 14.50	512.04/478	9.8556±3.6	1.1562E-06±4.0E-07
090809978	10	7.733:9.646	none	-	-	-	-	-	-	-	-
090809978	11	9.646:27.648	none	-	-	-	-	-	-	-	-
090820027	1	28.672:30.712	COMP	0.0742 ± 0.0263	−0.723 ± 0.100	-	174.10 ± 17.60	-	369.73/359	12.370±3.0	1.5426E-06±3.3E-07
090820027	2	30.712:31.028	BAND	0.6224 ± 0.1790	0.004 ± 0.157	−2.275 ± 0.150	147.50 ± 13.60	87.60 ± 8.62	397.84/358	42.721±6.5	7.5879E-06±9.5E-07
090820027	3	31.028:31.263	BAND	0.5011 ± 0.1260	−0.195 ± 0.124	−2.371 ± 0.177	179.10 ± 16.50	111.51 ± 12.03	402.66/358	50.554±7.3	9.3144E-06±1.1E-06
090820027	4	31.263:31.434	COMP	0.3474 ± 0.0624	−0.505 ± 0.071	-	263.10 ± 18.40	-	389.38/359	60.155±7.4	1.1251E-05±1.2E-06
090820027	5	31.434:31.575	BAND	0.8441 ± 0.2000	−0.200 ± 0.113	−2.533 ± 0.188	193.40 ± 16.50	128.94 ± 13.43	313.29/358	90.913±12.0	1.7025E-05±1.8E-06
090820027	6	31.575:31.700	BAND	0.9801 ± 0.2370	−0.132 ± 0.113	−2.704 ± 0.216	198.50 ± 16.10	139.91 ± 14.49	356.14/358	101.19±13.0	1.9234E-05±2.0E-06
090820027	7	31.700:31.833	COMP	0.6098 ± 0.1170	−0.340 ± 0.074	-	238.90 ± 14.40	-	354.1/359	86.246±11.0	1.5929E-05±1.7E-06
090820027	8	31.833:31.957	COMP	0.4103 ± 0.0765	−0.608 ± 0.067	-	281.70 ± 22.50	-	322.91/359	80.515±10.0	1.5129E-05±1.6E-06
090820027	9	31.957:32.078	COMP	0.4201 ± 0.0735	−0.600 ± 0.065	-	296.90 ± 23.30	-	366.08/359	84.427±10.0	1.6566E-05±1.6E-06
090820027	10	32.078:32.195	COMP	0.5319 ± 0.0961	−0.454 ± 0.071	-	268.00 ± 18.30	-	371.75/359	89.626±11.0	1.7391E-05±1.7E-06
090820027	11	32.195:32.310	COMP	0.5584 ± 0.0995	−0.541 ± 0.066	-	265.90 ± 18.70	-	365.75/359	100.25±12.0	1.8596E-05±1.8E-06
090820027	12	32.310:32.417	SBPL	0.4421 ± 0.0616	−0.254 ± 0.118	−2.502 ± 0.162	173.04 ± 28.10	111.70 ± 14.30	336.78/358	109.56±14.0	2.1262E-05±2.2E-06
090820027	13	32.417:32.513	BAND	0.9351 ± 0.2180	−0.233 ± 0.109	−2.532 ± 0.191	208.60 ± 18.50	138.86 ± 15.15	315.23/358	110.89±14.0	2.1627E-05±2.2E-06
090820027	14	32.513:32.614	COMP	0.5500 ± 0.0958	−0.512 ± 0.066	-	275.80 ± 19.00	-	340.94/359	98.817±12.0	1.9112E-05±1.9E-06
090820027	15	32.614:32.710	COMP	0.8534 ± 0.1750	−0.364 ± 0.075	-	231.90 ± 14.60	-	296.74/359	120.14±16.0	2.1452E-05±2.3E-06
090820027	16	32.710:32.806	COMP	0.6300 ± 0.1090	−0.523 ± 0.067	-	267.50 ± 18.20	-	390.12/359	111.92±13.0	2.1028E-05±2.0E-06
090820027	17	32.806:32.898	COMP	0.8355 ± 0.1450	−0.512 ± 0.066	-	262.60 ± 17.10	-	319.05/359	145.29±17.0	2.7043E-05±2.4E-06
090820027	18	32.898:32.982	COMP	0.5663 ± 0.1040	−0.545 ± 0.067	-	288.50 ± 21.80	-	379.56/359	107.29±13.0	2.1171E-05±2.1E-06
090820027	19	32.982:33.066	BAND	1.3290 ± 0.3230	−0.239 ± 0.110	−2.648 ± 0.203	189.80 ± 16.00	133.27 ± 13.92	310.34/358	145.13±19.0	2.5902E-05±2.8E-06
090820027	20	33.066:33.148	COMP	0.8781 ± 0.1610	−0.492 ± 0.070	-	243.70 ± 15.80	-	312.45/359	142.84±17.0	2.5267E-05±2.5E-06
090820027	21	33.148:33.231	BAND	0.9817 ± 0.2330	−0.410 ± 0.106	−2.428 ± 0.171	198.50 ± 20.20	129.23 ± 14.80	279.57/358	131.61±17.0	2.3531E-05±2.5E-06
090820027	22	33.231:33.315	COMP	0.7701 ± 0.1440	−0.502 ± 0.068	-	246.50 ± 16.00	-	359.45/359	127.35±16.0	2.2635E-05±2.4E-06
090820027	23	33.315:33.401	BAND	1.3960 ± 0.3390	−0.212 ± 0.110	−2.718 ± 0.220	185.40 ± 14.70	133.37 ± 14.09	361.08/358	145.16±19.0	2.5422E-05±2.8E-06
090820027	24	33.401:33.486	SBPL	0.5732 ± 0.0870	−0.501 ± 0.089	−2.835 ± 0.227	164.34 ± 24.50	133.50 ± 17.40	342.99/358	151.15±21.0	2.5684E-05±2.9E-06
090820027	25	33.486:33.570	COMP	0.7321 ± 0.1460	−0.509 ± 0.072	-	234.60 ± 15.80	-	354.98/359	117.80±16.0	2.0068E-05±2.3E-06
090820027	26	33.570:33.653	COMP	0.9713 ± 0.2050	−0.441 ± 0.073	-	220.20 ± 14.00	-	358.37/359	140.64±20.0	2.3377E-05±2.7E-06
090820027	27	33.653:33.735	COMP	0.8816 ± 0.1920	−0.425 ± 0.076	-	211.80 ± 13.30	-	355.62/359	122.21±18.0	1.9786E-05±2.5E-06
090820027	28	33.735:33.828	COMP	0.9190 ± 0.2030	−0.450 ± 0.076	-	205.00 ± 12.60	-	307.79/359	127.27±19.0	1.9883E-05±2.5E-06
090820027	29	33.828:33.917	COMP	0.5553 ± 0.1140	−0.517 ± 0.072	-	241.80 ± 16.70	-	353.47/359	91.851±13.0	1.5978E-05±2.0E-06
090820027	30	33.917:33.995	COMP	0.5730 ± 0.1190	−0.569 ± 0.070	-	253.10 ± 19.40	-	333.63/359	102.05±15.0	1.7991E-05±2.2E-06
090820027	31	33.995:34.075	COMP	0.7650 ± 0.1340	−0.699 ± 0.063	-	266.10 ± 20.10	-	349.44/359	157.03±19.0	2.7042E-05±2.6E-06
090820027	32	34.075:34.159	COMP	0.9332 ± 0.1810	−0.580 ± 0.067	-	234.10 ± 16.20	-	320.64/359	159.81±20.0	2.6388E-05±2.7E-06
090820027	33	34.159:34.245	COMP	0.6203 ± 0.1040	−0.560 ± 0.065	-	273.90 ± 18.70	-	330.74/359	115.14±13.0	2.1670E-05±2.1E-06
090820027	34	34.245:34.324	COMP	0.5581 ± 0.0965	−0.591 ± 0.064	-	304.10 ± 23.30	-	334.63/359	112.96±14.0	2.2668E-05±2.2E-06
090820027	35	34.324:34.402	COMP	0.5786 ± 0.0964	−0.640 ± 0.062	-	307.60 ± 23.90	-	345.02/359	122.24±14.0	2.4112E-05±2.3E-06
090820027	36	34.402:34.476	COMP	0.6723 ± 0.1110	−0.543 ± 0.064	-	307.20 ± 22.50	-	315.92/359	132.22±15.0	2.7394E-05±2.4E-06
090820027	37	34.476:34.552	COMP	0.5523 ± 0.0901	−0.560 ± 0.063	-	329.50 ± 25.80	-	333.52/359	114.68±13.0	2.4815E-05±2.2E-06
090820027	38	34.552:34.627	COMP	0.6807 ± 0.1080	−0.572 ± 0.061	-	315.20 ± 22.90	-	361.99/359	138.79±15.0	2.8887E-05±2.5E-06
090820027	39	34.627:34.700	COMP	0.6275 ± 0.1100	−0.592 ± 0.064	-	294.40 ± 22.50	-	314.37/359	124.68±15.0	2.4419E-05±2.4E-06
090820027	40	34.700:34.779	COMP	0.5646 ± 0.0965	−0.665 ± 0.061	-	303.10 ± 24.10	-	363.25/359	120.67±14.0	2.3234E-05±2.2E-06

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
090820027	41	34.779:34.855	COMP	0.6098 ± 0.0982	−0.678 ± 0.059	-	336.70 ± 28.10	-	328.78/359	138.89±15.0	2.8602E-05±2.5E-06
090820027	42	34.855:34.936	COMP	0.5606 ± 0.0926	−0.669 ± 0.060	-	315.70 ± 25.50	-	405.0/359	122.77±14.0	2.4282E-05±2.2E-06
090820027	43	34.936:35.016	COMP	0.8173 ± 0.1490	−0.486 ± 0.068	-	258.40 ± 17.20	-	408.95/359	137.71±17.0	2.5596E-05±2.5E-06
090820027	44	35.016:35.103	COMP	0.7636 ± 0.1330	−0.604 ± 0.065	-	260.80 ± 18.30	-	379.29/359	142.64±17.0	2.5332E-05±2.4E-06
090820027	45	35.103:35.184	COMP	1.0020 ± 0.1900	−0.486 ± 0.070	-	238.50 ± 15.50	-	298.17/359	159.83±20.0	2.7854E-05±2.8E-06
090820027	46	35.184:35.268	COMP	0.6161 ± 0.1040	−0.531 ± 0.066	-	288.10 ± 20.50	-	336.53/359	115.43±13.0	2.2901E-05±2.1E-06
090820027	47	35.268:35.353	COMP	0.8231 ± 0.1590	−0.468 ± 0.070	-	240.60 ± 15.80	-	352.3/359	130.02±17.0	2.2992E-05±2.4E-06
090820027	48	35.353:35.439	COMP	0.8558 ± 0.1620	−0.451 ± 0.070	-	237.60 ± 15.00	-	391.22/359	132.10±17.0	2.3278E-05±2.4E-06
090820027	49	35.439:35.530	COMP	0.7472 ± 0.1570	−0.445 ± 0.073	-	228.30 ± 14.80	-	294.65/359	111.51±16.0	1.9058E-05±2.3E-06
090820027	50	35.530:35.610	COMP	0.9623 ± 0.1770	−0.490 ± 0.068	-	249.00 ± 16.50	-	327.47/359	158.57±19.0	2.8564E-05±2.7E-06
090820027	51	35.610:35.692	COMP	0.9328 ± 0.2020	−0.506 ± 0.073	-	230.10 ± 16.20	-	320.08/359	147.72±21.0	2.4806E-05±2.8E-06
090820027	52	35.692:35.782	COMP	0.5546 ± 0.1050	−0.612 ± 0.067	-	258.50 ± 19.10	-	320.01/359	103.79±14.0	1.8244E-05±2.0E-06
090820027	53	35.782:35.875	COMP	0.9073 ± 0.1910	−0.483 ± 0.073	-	213.70 ± 13.60	-	348.89/359	133.66±19.0	2.1340E-05±2.5E-06
090820027	54	35.875:35.964	COMP	0.6696 ± 0.1450	−0.577 ± 0.072	-	233.00 ± 17.60	-	311.28/359	114.02±17.0	1.8784E-05±2.3E-06
090820027	55	35.964:36.055	COMP	0.9667 ± 0.2060	−0.435 ± 0.075	-	207.30 ± 12.70	-	400.11/359	133.05±19.0	2.1090E-05±2.5E-06
090820027	56	36.055:36.157	COMP	0.6634 ± 0.1390	−0.639 ± 0.070	-	219.20 ± 15.50	-	350.54/359	115.43±17.0	1.7678E-05±2.1E-06
090820027	57	36.157:36.270	COMP	0.4280 ± 0.0880	−0.742 ± 0.066	-	255.40 ± 22.00	-	331.14/359	89.414±13.0	1.4630E-05±1.7E-06
090820027	58	36.270:36.385	COMP	0.5616 ± 0.1030	−0.695 ± 0.065	-	254.90 ± 19.40	-	362.41/359	112.17±14.0	1.8761E-05±1.9E-06
090820027	59	36.385:36.510	COMP	0.4610 ± 0.0954	−0.714 ± 0.068	-	236.90 ± 19.10	-	398.75/359	90.178±13.0	1.4164E-05±1.7E-06
090820027	60	36.510:36.641	COMP	0.3739 ± 0.0683	−0.811 ± 0.063	-	289.40 ± 26.90	-	375.98/359	88.189±11.0	1.5180E-05±1.6E-06
090820027	61	36.641:36.770	COMP	0.3646 ± 0.0661	−0.826 ± 0.062	-	292.30 ± 27.60	-	340.62/359	87.491±11.0	1.5035E-05±1.5E-06
090820027	62	36.770:36.896	COMP	0.4804 ± 0.1030	−0.727 ± 0.070	-	235.50 ± 19.70	-	362.09/359	94.915±14.0	1.4753E-05±1.8E-06
090820027	63	36.896:37.029	COMP	0.5134 ± 0.1100	−0.754 ± 0.070	-	226.10 ± 19.00	-	358.49/359	101.94±15.0	1.5200E-05±1.8E-06
090820027	64	37.029:37.169	COMP	0.4108 ± 0.0877	−0.800 ± 0.066	-	245.70 ± 22.60	-	378.12/359	89.015±13.0	1.3774E-05±1.6E-06
090820027	65	37.169:37.324	COMP	0.4532 ± 0.0992	−0.751 ± 0.069	-	218.40 ± 17.80	-	350.62/359	88.172±13.0	1.2830E-05±1.6E-06
090820027	66	37.324:37.478	COMP	0.3729 ± 0.0757	−0.692 ± 0.070	-	255.80 ± 22.00	-	285.05/359	74.444±10.0	1.2498E-05±1.4E-06
090820027	67	37.478:37.638	COMP	0.3243 ± 0.0704	−0.766 ± 0.068	-	248.80 ± 23.20	-	360.92/359	68.397±10.0	1.0856E-05±1.3E-06
090820027	68	37.638:37.797	COMP	0.4198 ± 0.0959	−0.586 ± 0.076	-	223.20 ± 17.30	-	406.73/359	70.181±11.0	1.1141E-05±1.4E-06
090820027	69	37.797:37.965	COMP	0.4341 ± 0.0896	−0.668 ± 0.070	-	232.80 ± 18.20	-	363.26/359	80.497±11.0	1.2737E-05±1.4E-06
090820027	70	37.965:38.135	COMP	0.3783 ± 0.0836	−0.763 ± 0.072	-	229.20 ± 19.90	-	354.82/359	76.340±11.0	1.1443E-05±1.4E-06
090820027	71	38.135:38.339	COMP	0.5124 ± 0.1230	−0.708 ± 0.075	-	189.60 ± 14.50	-	383.35/359	88.100±14.0	1.1768E-05±1.6E-06
090820027	72	38.339:38.550	COMP	0.4096 ± 0.1110	−0.524 ± 0.085	-	187.00 ± 13.20	-	410.79/359	57.226±11.0	8.0851E-06±1.3E-06
090820027	73	38.550:38.782	COMP	0.4367 ± 0.1180	−0.600 ± 0.084	-	177.60 ± 12.90	-	410.78/359	64.038±12.0	8.4636E-06±1.3E-06
090820027	74	38.782:39.058	COMP	0.4182 ± 0.1250	−0.587 ± 0.087	-	164.80 ± 11.90	-	316.14/359	57.505±12.0	7.2071E-06±1.3E-06
090820027	75	39.058:39.340	COMP	0.2841 ± 0.0850	−0.642 ± 0.085	-	174.90 ± 13.60	-	347.58/359	43.263±9.2	5.5703E-06±1.1E-06
090820027	76	39.340:39.671	COMP	0.2567 ± 0.0798	−0.745 ± 0.088	-	171.10 ± 14.90	-	378.62/359	43.489±9.4	5.3106E-06±1.0E-06
090820027	77	39.671:40.060	PL	0.0118 ± 0.0040	−1.529 ± 0.029	-	-	-	629.96/360	6.8645±2.4	1.0461E-06±3.5E-07
090820027	78	40.060:40.455	PL	0.0139 ± 0.0046	−1.594 ± 0.029	-	-	-	498.1/360	8.5915±2.9	1.1799E-06±3.8E-07
090820027	79	40.455:40.774	BAND	0.2291 ± 0.0906	−0.834 ± 0.104	−3.039 ± 0.769	139.00 ± 14.90	133.85 ± 46.26	383.55/358	39.066±12.0	4.2739E-06±1.2E-06
090820027	80	40.774:41.085	COMP	0.1952 ± 0.0697	−0.944 ± 0.083	-	158.30 ± 15.40	-	427.42/359	40.710±11.0	4.3922E-06±1.1E-06
090820027	81	41.085:41.386	COMP	0.1718 ± 0.0615	−0.891 ± 0.085	-	169.50 ± 16.90	-	336.6/359	34.578±9.5	3.9800E-06±1.0E-06
090820027	82	41.386:41.698	SBPL	0.0651 ± 0.0234	−1.136 ± 0.078	−2.836 ± 0.520	146.75 ± 54.31	139.70 ± 41.40	379.19/358	25.969±9.0	2.9922E-06±9.5E-07
090820027	83	41.698:42.019	COMP	0.2447 ± 0.0681	−1.077 ± 0.073	-	173.40 ± 18.70	-	419.24/359	62.948±12.0	6.8448E-06±1.1E-06
090820027	84	42.019:42.318	COMP	0.2195 ± 0.0749	−0.997 ± 0.084	-	156.10 ± 15.90	-	379.23/359	48.839±12.0	5.1251E-06±1.2E-06
090820027	85	42.318:42.654	COMP	0.2359 ± 0.0843	−0.880 ± 0.087	-	146.70 ± 12.70	-	379.24/359	43.650±12.0	4.5731E-06±1.1E-06
090820027	86	42.654:43.029	PL	0.0122 ± 0.0043	−1.568 ± 0.030	-	-	-	473.67/360	7.3645±2.6	1.0545E-06±3.7E-07
090820027	87	43.029:43.506	PL	0.0145 ± 0.0037	−1.544 ± 0.029	-	-	-	456.52/360	8.5427±2.3	1.2721E-06±3.2E-07
090820027	88	43.506:44.156	PL	0.0119 ± 0.0039	−1.644 ± 0.032	-	-	-	461.86/360	7.7420±2.6	9.8068E-07±3.2E-07
090820027	89	44.156:45.602	none	-	-	-	-	-	-	-	-
090820027	90	45.602:51.175	none	-	-	-	-	-	-	-	-
090820027	91	51.175:58.098	none	-	-	-	-	-	-	-	-
090820027	92	58.098:62.464	none	-	-	-	-	-	-	-	-
090829672	1	-7.168:35.466	BAND	0.0126 ± 0.0027	−1.566 ± 0.052	−2.211 ± 0.133	85.26 ± 11.80	66.26 ± 14.42	1559.4/477	5.7176±1.1	4.6019E-07±8.2E-08

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
090829672	2	35.466:37.152	COMP	0.0284 ± 0.0061	−1.498 ± 0.041	-	375.70 ± 99.90	-	458.8/478	14.330±2.6	1.6936E-06±2.8E-07
090829672	3	37.152:38.361	COMP	0.0530 ± 0.0103	−1.556 ± 0.042	-	303.80 ± 76.30	-	624.43/478	28.134±4.3	2.9960E-06±3.9E-07
090829672	4	38.361:39.681	COMP	0.0456 ± 0.0140	−1.376 ± 0.053	-	168.30 ± 21.20	-	535.03/478	17.395±4.5	1.6559E-06±4.0E-07
090829672	5	39.681:40.315	COMP	0.1115 ± 0.0211	−1.228 ± 0.048	-	239.10 ± 28.00	-	557.01/478	38.026±5.3	4.6090E-06±5.5E-07
090829672	6	40.315:41.466	COMP	0.0421 ± 0.0101	−1.537 ± 0.046	-	258.00 ± 59.40	-	498.44/478	21.412±4.2	2.2073E-06±3.9E-07
090829672	7	41.466:42.091	COMP	0.1100 ± 0.0203	−1.235 ± 0.046	-	249.00 ± 29.60	-	490.81/478	38.142±5.2	4.6993E-06±5.5E-07
090829672	8	42.091:42.688	COMP	0.1086 ± 0.0259	−1.344 ± 0.052	-	178.10 ± 20.80	-	545.09/478	40.101±7.4	3.9719E-06±6.6E-07
090829672	9	42.688:43.611	COMP	0.0434 ± 0.0122	−1.524 ± 0.049	-	211.40 ± 40.80	-	541.54/478	21.141±5.1	2.0594E-06±4.5E-07
090829672	10	43.611:44.442	COMP	0.1250 ± 0.0303	−1.236 ± 0.054	-	158.70 ± 15.10	-	559.4/478	38.567±7.0	3.7617E-06±6.0E-07
090829672	11	44.442:45.316	COMP	0.1843 ± 0.0453	−1.192 ± 0.056	-	137.30 ± 11.00	-	535.02/478	50.999±9.0	4.6665E-06±7.3E-07
090829672	12	45.316:45.814	COMP	0.1679 ± 0.0434	−1.119 ± 0.057	-	152.60 ± 12.20	-	548.55/478	43.502±8.7	4.3273E-06±8.0E-07
090829672	13	45.814:46.198	COMP	0.1473 ± 0.0262	−1.132 ± 0.048	-	261.80 ± 27.90	-	551.96/478	46.073±6.1	6.1938E-06±7.1E-07
090829672	14	46.198:46.546	COMP	0.2009 ± 0.0358	−1.058 ± 0.049	-	233.50 ± 21.20	-	544.2/478	55.851±7.2	7.3402E-06±8.1E-07
090829672	15	46.546:46.799	COMP	0.3221 ± 0.0498	−0.973 ± 0.047	-	250.50 ± 19.90	-	522.69/478	83.675±9.0	1.2011E-05±1.1E-06
090829672	16	46.799:47.235	COMP	0.1206 ± 0.0236	−1.235 ± 0.048	-	244.30 ± 29.10	-	547.85/478	41.646±6.3	5.0835E-06±6.7E-07
090829672	17	47.235:47.790	COMP	0.0972 ± 0.0191	−1.264 ± 0.047	-	265.70 ± 36.50	-	434.21/478	35.425±5.3	4.4197E-06±5.7E-07
090829672	18	47.790:48.154	COMP	0.1776 ± 0.0243	−1.093 ± 0.041	-	352.80 ± 38.50	-	467.96/478	57.788±5.7	9.3117E-06±7.4E-07
090829672	19	48.154:48.421	COMP	0.1640 ± 0.0238	−1.086 ± 0.043	-	379.40 ± 45.20	-	533.21/478	54.023±5.8	9.0678E-06±8.2E-07
090829672	20	48.421:48.874	COMP	0.1290 ± 0.0258	−1.236 ± 0.049	-	226.50 ± 25.90	-	544.24/478	43.847±6.6	5.1485E-06±6.8E-07
090829672	21	48.874:49.211	COMP	0.1326 ± 0.0177	−1.068 ± 0.041	-	420.20 ± 49.90	-	494.93/478	44.106±4.4	7.8852E-06±6.7E-07
090829672	22	49.211:49.956	COMP	0.0952 ± 0.0201	−1.276 ± 0.049	-	214.80 ± 25.80	-	561.46/478	33.561±5.4	3.7563E-06±5.3E-07
090829672	23	49.956:50.345	COMP	0.1524 ± 0.0267	−1.010 ± 0.049	-	270.20 ± 26.30	-	504.78/478	42.240±5.4	6.2168E-06±6.8E-07
090829672	24	50.345:50.686	COMP	0.1746 ± 0.0352	−1.044 ± 0.051	-	217.80 ± 19.30	-	499.11/478	46.626±7.1	5.9206E-06±8.0E-07
090829672	25	50.686:51.102	COMP	0.1621 ± 0.0342	−1.244 ± 0.051	-	196.60 ± 20.70	-	583.15/478	53.659±8.5	5.8389E-06±8.1E-07
090829672	26	51.102:51.803	SBPL	0.0428 ± 0.0083	−1.017 ± 0.191	−1.953 ± 0.067	130.01 ± 51.19	35.35 ± 9.19	531.46/477	24.940±4.7	2.7792E-06±4.8E-07
090829672	27	51.803:52.537	COMP	0.0714 ± 0.0167	−1.299 ± 0.048	-	209.70 ± 25.20	-	524.46/478	25.765±4.9	2.8175E-06±4.9E-07
090829672	28	52.537:53.030	SBPL	0.1064 ± 0.0205	−1.249 ± 0.062	−2.427 ± 0.203	125.10 ± 32.24	100.80 ± 21.90	519.79/477	50.406±9.0	5.3909E-06±8.3E-07
090829672	29	53.030:53.673	COMP	0.1112 ± 0.0319	−1.463 ± 0.055	-	131.50 ± 15.10	-	545.3/478	45.701±10.0	3.7874E-06±7.8E-07
090829672	30	53.673:54.665	COMP	0.0684 ± 0.0206	−1.465 ± 0.055	-	140.70 ± 17.70	-	490.4/478	28.624±7.0	2.4403E-06±5.5E-07
090829672	31	54.665:56.773	COMP	0.0261 ± 0.0078	−1.606 ± 0.047	-	193.70 ± 41.70	-	507.39/478	14.108±3.6	1.2805E-06±3.0E-07
090829672	32	56.773:61.937	COMP	0.0189 ± 0.0058	−1.722 ± 0.047	-	139.90 ± 31.20	-	518.15/478	11.803±3.1	9.3541E-07±2.2E-07
090829672	33	61.937:115.712	none	-	-	-	-	-	-	-	-
090902462	1	-1.024:1.039	COMP	0.0435 ± 0.0053	−0.301 ± 0.070	-	422.90 ± 30.40	-	546.12/479	9.3811±0.72	2.7903E-06±1.7E-07
090902462	2	1.039:1.882	COMP	0.0622 ± 0.0064	−0.273 ± 0.064	-	528.50 ± 37.20	-	536.67/479	15.678±1.1	5.5143E-06±3.1E-07
090902462	3	1.882:2.667	COMP	0.0563 ± 0.0045	−0.200 ± 0.062	-	733.70 ± 49.10	-	517.95/479	17.877±0.97	7.8971E-06±3.3E-07
090902462	4	2.667:3.240	COMP	0.0950 ± 0.0091	−0.232 ± 0.063	-	532.30 ± 33.70	-	519.86/479	23.966±1.5	8.6530E-06±4.3E-07
090902462	5	3.240:3.956	COMP	0.0649 ± 0.0059	−0.283 ± 0.060	-	625.40 ± 44.40	-	557.52/479	18.382±1.1	7.1204E-06±3.5E-07
090902462	6	3.956:4.698	COMP	0.0872 ± 0.0089	−0.220 ± 0.065	-	478.50 ± 30.30	-	491.65/479	20.220±1.3	6.8388E-06±3.5E-07
090902462	7	4.698:5.362	COMP	0.0683 ± 0.0056	−0.189 ± 0.060	-	666.80 ± 42.40	-	540.26/479	20.321±1.1	8.5860E-06±3.8E-07
090902462	8	5.362:5.960	COMP	0.0836 ± 0.0065	−0.103 ± 0.063	-	653.50 ± 37.00	-	575.91/479	24.769±1.3	1.0813E-05±4.3E-07
090902462	9	5.960:6.433	COMP	0.0828 ± 0.0061	−0.010 ± 0.065	-	738.40 ± 40.20	-	496.82/479	27.615±1.3	1.3468E-05±5.0E-07
090902462	10	6.433:6.851	SBPL	0.0738 ± 0.0044	−0.653 ± 0.034	−4.244 ± 0.861	920.86 ± 183.28	1086.00 ± 183.00	533.83/478	34.228±1.7	1.5363E-05±5.9E-07
090902462	11	6.851:7.218	SBPL	0.0789 ± 0.0049	−0.696 ± 0.033	−3.664 ± 0.552	909.32 ± 163.01	979.30 ± 151.00	570.72/478	35.798±1.9	1.5281E-05±6.2E-07
090902462	12	7.218:7.500	COMP	0.1276 ± 0.0088	−0.647 ± 0.037	-	1120.00 ± 94.80	-	595.69/479	46.651±2.6	1.7814E-05±7.7E-07
090902462	13	7.500:7.774	COMP	0.1411 ± 0.0086	−0.815 ± 0.029	-	1558.00 ± 130.00	-	637.18/479	55.487±3.0	1.9578E-05±8.2E-07
090902462	14	7.774:7.958	COMP	0.1698 ± 0.0113	−0.953 ± 0.027	-	1714.00 ± 180.00	-	553.48/479	68.818±4.2	2.1205E-05±1.0E-06
090902462	15	7.958:8.119	COMP	0.2292 ± 0.0147	−1.135 ± 0.024	-	1919.00 ± 233.00	-	552.72/479	99.364±6.2	2.4792E-05±1.2E-06
090902462	16	8.119:8.280	COMP	0.2152 ± 0.0168	−1.097 ± 0.028	-	1432.00 ± 212.00	-	581.77/479	89.569±6.2	2.2469E-05±1.3E-06
090902462	17	8.280:8.424	COMP	0.2401 ± 0.0170	−1.137 ± 0.026	-	1695.00 ± 248.00	-	670.2/479	103.21±6.8	2.5277E-05±1.4E-06
090902462	18	8.424:8.563	COMP	0.2123 ± 0.0157	−1.097 ± 0.026	-	1668.00 ± 235.00	-	698.57/479	89.590±6.1	2.3052E-05±1.3E-06
090902462	19	8.563:8.706	COMP	0.2387 ± 0.0176	−1.173 ± 0.025	-	1688.00 ± 269.00	-	650.55/479	104.38±7.1	2.4367E-05±1.4E-06
090902462	20	8.706:8.874	COMP	0.1910 ± 0.0138	−1.223 ± 0.024	-	2099.00 ± 341.00	-	652.19/479	86.868±6.1	1.9453E-05±1.1E-06
090902462	21	8.874:9.030	COMP	0.2107 ± 0.0153	−1.111 ± 0.027	-	1612.00 ± 230.00	-	668.22/479	89.175±6.0	2.2418E-05±1.2E-06

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
090902462	22	9.030:9.184	COMP	0.2681 ± 0.0177	−1.195 ± 0.024	-	1738.00 ± 245.00	-	691.19/479	118.77±7.5	2.7050E-05±1.4E-06
090902462	23	9.184:9.315	COMP	0.2532 ± 0.0184	−1.279 ± 0.024	-	1860.00 ± 305.00	-	591.21/479	118.24±8.5	2.4182E-05±1.4E-06
090902462	24	9.315:9.443	COMP	0.2401 ± 0.0193	−1.278 ± 0.025	-	1729.00 ± 336.00	-	580.99/479	111.65±8.4	2.2688E-05±1.4E-06
090902462	25	9.443:9.595	COMP	0.2588 ± 0.0190	−1.290 ± 0.024	-	1483.00 ± 239.00	-	627.05/479	120.21±8.5	2.3601E-05±1.3E-06
090902462	26	9.595:9.721	COMP	0.2417 ± 0.0201	−1.245 ± 0.026	-	1423.00 ± 255.00	-	574.66/479	108.77±8.3	2.2551E-05±1.4E-06
090902462	27	9.721:9.816	COMP	0.4213 ± 0.0351	−1.062 ± 0.031	-	887.10 ± 110.00	-	637.03/479	162.34±11.0	3.8251E-05±2.1E-06
090902462	28	9.816:9.938	COMP	0.3064 ± 0.0289	−1.235 ± 0.031	-	898.50 ± 154.00	-	622.23/479	131.74±10.0	2.5489E-05±1.6E-06
090902462	29	9.938:10.059	COMP	0.2442 ± 0.0208	−1.076 ± 0.030	-	1195.00 ± 178.00	-	556.83/479	98.708±7.2	2.4557E-05±1.5E-06
090902462	30	10.059:10.206	COMP	0.2610 ± 0.0200	−1.104 ± 0.029	-	1191.00 ± 163.00	-	630.61/479	106.87±7.1	2.5702E-05±1.4E-06
090902462	31	10.206:10.383	COMP	0.2169 ± 0.0178	−1.136 ± 0.030	-	1139.00 ± 176.00	-	619.63/479	89.813±6.3	2.0600E-05±1.2E-06
090902462	32	10.383:10.561	COMP	0.2391 ± 0.0157	−1.160 ± 0.024	-	1687.00 ± 225.00	-	734.44/479	103.90±6.5	2.4661E-05±1.2E-06
090902462	33	10.561:10.720	COMP	0.2229 ± 0.0153	−1.155 ± 0.025	-	1798.00 ± 245.00	-	671.26/479	97.037±6.4	2.3406E-05±1.2E-06
090902462	34	10.720:10.881	COMP	0.2289 ± 0.0178	−1.270 ± 0.026	-	1508.00 ± 263.00	-	610.08/479	105.05±7.7	2.1232E-05±1.3E-06
090902462	35	10.881:11.011	COMP	0.2249 ± 0.0171	−1.041 ± 0.028	-	1374.00 ± 175.00	-	576.99/479	91.099±6.2	2.4304E-05±1.4E-06
090902462	36	11.011:11.145	COMP	0.2612 ± 0.0199	−1.048 ± 0.029	-	1219.00 ± 151.00	-	596.3/479	104.54±7.0	2.7016E-05±1.4E-06
090902462	37	11.145:11.326	COMP	0.1745 ± 0.0143	−1.097 ± 0.029	-	1289.00 ± 195.00	-	618.35/479	71.818±5.1	1.7685E-05±1.0E-06
090902462	38	11.326:11.521	COMP	0.1277 ± 0.0112	−1.191 ± 0.028	-	1586.00 ± 294.00	-	635.8/479	56.095±4.5	1.2686E-05±8.7E-07
090902462	39	11.521:11.718	COMP	0.1703 ± 0.0139	−0.955 ± 0.032	-	1117.00 ± 140.00	-	569.53/479	65.024±4.4	1.8308E-05±1.0E-06
090902462	40	11.718:11.934	COMP	0.1749 ± 0.0140	−1.103 ± 0.030	-	1212.00 ± 181.00	-	670.33/479	71.709±5.0	1.7320E-05±9.6E-07
090902462	41	11.934:12.204	COMP	0.1156 ± 0.0121	−1.265 ± 0.032	-	1110.00 ± 252.00	-	523.48/479	51.746±4.7	1.0056E-05±7.5E-07
090902462	42	12.204:12.390	COMP	0.1635 ± 0.0241	−1.034 ± 0.047	-	481.80 ± 66.10	-	466.56/479	54.824±6.0	1.0712E-05±9.7E-07
090902462	43	12.390:12.584	COMP	0.2432 ± 0.0583	−1.018 ± 0.061	-	196.00 ± 17.20	-	518.23/479	60.780±11.0	7.3076E-06±1.2E-06
090902462	44	12.584:12.933	BAND	0.3664 ± 0.1300	−0.984 ± 0.124	−2.548 ± 0.219	80.29 ± 8.18	65.35 ± 9.93	535.1/478	59.314±18.0	4.9693E-06±1.4E-06
090902462	45	12.933:13.100	SBPL	0.2300 ± 0.0398	−0.782 ± 0.069	−2.804 ± 0.273	162.80 ± 29.43	139.10 ± 21.60	492.73/478	70.693±11.0	1.0556E-05±1.5E-06
090902462	46	13.100:13.219	COMP	0.3406 ± 0.0475	−0.704 ± 0.052	-	375.10 ± 30.20	-	513.54/479	83.188±8.2	1.8139E-05±1.5E-06
090902462	47	13.219:13.346	SBPL	0.4066 ± 0.0540	−0.650 ± 0.073	−2.627 ± 0.186	176.62 ± 27.12	134.50 ± 17.50	535.81/478	117.27±14.0	1.9931E-05±2.0E-06
090902462	48	13.346:13.477	COMP	0.3232 ± 0.0513	−0.861 ± 0.053	-	322.50 ± 28.90	-	468.28/479	83.237±9.4	1.4925E-05±1.4E-06
090902462	49	13.477:13.663	COMP	0.2878 ± 0.0471	−0.856 ± 0.052	-	293.50 ± 25.10	-	508.65/479	71.033±8.1	1.2033E-05±1.1E-06
090902462	50	13.663:13.845	COMP	0.2375 ± 0.0343	−0.732 ± 0.053	-	368.50 ± 31.70	-	493.74/479	58.617±5.9	1.2416E-05±1.0E-06
090902462	51	13.845:14.032	COMP	0.2479 ± 0.0326	−0.866 ± 0.048	-	400.10 ± 37.10	-	499.4/479	69.514±6.5	1.4137E-05±1.1E-06
090902462	52	14.032:14.171	COMP	0.2420 ± 0.0201	−0.612 ± 0.041	-	778.30 ± 63.20	-	509.25/479	78.181±4.9	2.7021E-05±1.3E-06
090902462	53	14.171:14.336	COMP	0.2140 ± 0.0173	−0.733 ± 0.038	-	896.20 ± 81.70	-	526.68/479	73.770±4.7	2.4295E-05±1.2E-06
090902462	54	14.336:14.512	COMP	0.2518 ± 0.0364	−0.761 ± 0.052	-	359.40 ± 30.90	-	498.97/479	62.724±6.4	1.2834E-05±1.1E-06
090902462	55	14.512:14.712	COMP	0.1837 ± 0.0151	−0.788 ± 0.037	-	905.40 ± 90.00	-	477.29/479	64.165±4.1	2.0150E-05±1.0E-06
090902462	56	14.712:14.889	COMP	0.1903 ± 0.0176	−0.670 ± 0.042	-	710.00 ± 63.50	-	533.06/479	60.009±4.1	1.9033E-05±1.0E-06
090902462	57	14.889:15.040	COMP	0.2245 ± 0.0228	−0.709 ± 0.043	-	635.00 ± 57.40	-	468.23/479	68.649±5.2	2.0047E-05±1.2E-06
090902462	58	15.040:15.181	COMP	0.2359 ± 0.0206	−0.555 ± 0.043	-	713.60 ± 54.50	-	550.25/479	73.050±4.7	2.5366E-05±1.3E-06
090902462	59	15.181:15.345	SBPL	0.1589 ± 0.0109	−0.681 ± 0.034	−3.961 ± 0.762	673.79 ± 137.03	766.30 ± 132.00	480.21/478	67.533±3.8	2.6128E-05±1.2E-06
090902462	60	15.345:15.534	SBPL	0.1401 ± 0.0090	−0.889 ± 0.028	−4.079 ± 0.896	982.90 ± 238.60	1208.00 ± 247.00	507.24/478	62.195±3.7	2.2387E-05±1.0E-06
090902462	61	15.534:15.723	SBPL	0.1323 ± 0.0085	−0.722 ± 0.032	−3.851 ± 0.634	866.99 ± 159.90	973.00 ± 156.00	477.48/478	59.115±3.3	2.4329E-05±1.1E-06
090902462	62	15.723:15.947	COMP	0.1591 ± 0.0195	−0.792 ± 0.047	-	516.10 ± 52.70	-	533.83/479	46.719±4.1	1.1536E-05±8.3E-07
090902462	63	15.947:16.184	COMP	0.1694 ± 0.0246	−0.837 ± 0.051	-	398.10 ± 40.40	-	581.0/479	46.431±4.8	9.6117E-06±8.1E-07
090902462	64	16.184:16.347	COMP	0.1993 ± 0.0198	−0.715 ± 0.043	-	702.90 ± 68.10	-	537.9/479	63.331±4.6	1.9268E-05±1.1E-06
090902462	65	16.347:16.507	COMP	0.2214 ± 0.0207	−0.612 ± 0.044	-	667.60 ± 56.00	-	471.47/479	67.264±4.5	2.1695E-05±1.2E-06
090902462	66	16.507:16.688	COMP	0.2152 ± 0.0207	−0.691 ± 0.043	-	613.30 ± 52.70	-	482.62/479	64.573±4.5	1.8813E-05±1.0E-06
090902462	67	16.688:16.901	COMP	0.1394 ± 0.0134	−0.764 ± 0.042	-	787.60 ± 83.90	-	552.28/479	46.552±3.4	1.4225E-05±8.5E-07
090902462	68	16.901:17.163	COMP	0.2768 ± 0.0488	−0.723 ± 0.060	-	257.50 ± 19.80	-	521.2/479	57.013±6.7	9.4796E-06±9.2E-07
090902462	69	17.163:17.389	COMP	0.1885 ± 0.0230	−0.664 ± 0.051	-	436.90 ± 36.20	-	502.08/479	48.333±4.1	1.1911E-05±8.3E-07
090902462	70	17.389:17.672	COMP	0.1307 ± 0.0157	−0.849 ± 0.047	-	565.80 ± 64.90	-	468.03/479	40.753±3.5	1.0051E-05±7.0E-07
090902462	71	17.672:17.979	COMP	0.1723 ± 0.0244	−0.785 ± 0.053	-	365.80 ± 32.80	-	480.05/479	44.009±4.3	8.9688E-06±7.1E-07
090902462	72	17.979:18.254	COMP	0.1715 ± 0.0301	−0.807 ± 0.057	-	297.40 ± 26.30	-	514.64/479	40.765±5.1	7.1648E-06±7.7E-07
090902462	73	18.254:18.512	COMP	0.1600 ± 0.0260	−0.868 ± 0.053	-	346.90 ± 34.50	-	469.15/479	42.641±5.0	7.9636E-06±7.8E-07
090902462	74	18.512:18.729	COMP	0.1443 ± 0.0147	−0.852 ± 0.041	-	780.90 ± 92.00	-	511.0/479	49.394±3.9	1.3874E-05±8.7E-07

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GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
090902462	75	18.729:19.065	COMP	0.1616 ± 0.0293	−0.928 ± 0.057	-	285.40 ± 28.10	-	500.6/479	42.173±5.4	6.7262E-06±7.2E-07
090902462	76	19.065:19.340	BAND	0.1943 ± 0.0358	−0.744 ± 0.082	−2.000 ± 0.100	299.50 ± 45.70	153.47 ± 24.36	503.1/478	45.031±4.6	9.2753E-06±7.9E-07
090902462	77	19.340:19.507	COMP	0.3402 ± 0.0536	−0.554 ± 0.059	-	292.70 ± 19.60	-	495.4/479	65.441±7.0	1.3005E-05±1.2E-06
090902462	78	19.507:19.650	COMP	0.3707 ± 0.0511	−0.463 ± 0.057	-	336.40 ± 21.40	-	471.79/479	73.293±6.8	1.6942E-05±1.3E-06
090902462	79	19.650:19.809	COMP	0.2749 ± 0.0350	−0.648 ± 0.052	-	411.00 ± 32.10	-	536.24/479	67.838±6.0	1.6251E-05±1.2E-06
090902462	80	19.809:19.958	COMP	0.3039 ± 0.0373	−0.782 ± 0.048	-	428.50 ± 37.00	-	444.05/479	82.645±7.2	1.8567E-05±1.3E-06
090902462	81	19.958:20.148	COMP	0.1656 ± 0.0186	−0.922 ± 0.043	-	655.50 ± 80.80	-	463.67/479	55.879±4.8	1.3752E-05±9.5E-07
090902462	82	20.148:20.383	COMP	0.1498 ± 0.0274	−0.900 ± 0.055	-	325.80 ± 33.40	-	488.98/479	40.043±5.4	7.0490E-06±8.3E-07
090902462	83	20.383:20.567	COMP	0.2171 ± 0.0281	−0.828 ± 0.048	-	435.90 ± 41.50	-	501.08/479	61.211±5.7	1.3426E-05±1.0E-06
090902462	84	20.567:20.787	COMP	0.3871 ± 0.0831	−0.679 ± 0.066	-	202.20 ± 13.30	-	530.14/479	66.895±9.9	9.4846E-06±1.2E-06
090902462	85	20.787:20.964	COMP	0.2084 ± 0.0257	−0.717 ± 0.049	-	460.30 ± 40.40	-	557.93/479	56.233±5.0	1.3790E-05±1.0E-06
090902462	86	20.964:21.246	SBPL	0.1549 ± 0.0295	−0.733 ± 0.121	−2.332 ± 0.143	117.16 ± 25.19	72.96 ± 12.40	456.73/478	58.144±10.0	7.4757E-06±1.1E-06
090902462	87	21.246:21.486	COMP	0.2886 ± 0.0553	−0.588 ± 0.065	-	246.40 ± 17.30	-	543.65/479	51.368±6.6	8.7999E-06±9.6E-07
090902462	88	21.486:21.702	COMP	0.2692 ± 0.0474	−0.616 ± 0.062	-	273.30 ± 19.90	-	466.61/479	52.198±6.3	9.5558E-06±9.7E-07
090902462	89	21.702:21.930	BAND	0.3147 ± 0.0655	−0.645 ± 0.098	−2.052 ± 0.115	199.50 ± 25.80	106.97 ± 14.53	520.94/478	54.381±6.9	9.6158E-06±1.0E-06
090902462	90	21.930:22.174	COMP	0.1363 ± 0.0202	−0.921 ± 0.050	-	444.60 ± 51.80	-	548.96/479	41.195±4.5	8.5059E-06±7.8E-07
090902462	91	22.174:22.982	SBPL	0.0371 ± 0.0084	−1.058 ± 0.215	−2.026 ± 0.093	95.40 ± 40.16	39.38 ± 12.20	531.6/478	21.791±4.8	2.3101E-06±4.5E-07
090902462	92	22.982:23.766	COMP	0.0879 ± 0.0272	−1.276 ± 0.070	-	156.90 ± 18.80	-	537.46/479	28.659±6.7	2.7333E-06±5.8E-07
090902462	93	23.766:24.314	COMP	0.0988 ± 0.0261	−0.979 ± 0.068	-	207.20 ± 21.00	-	564.48/479	24.080±4.8	3.0526E-06±5.5E-07
090902462	94	24.314:33.792	PL	0.0038 ± 0.0013	−1.863 ± 0.030	-	-	-	608.65/480	3.1357±1.1	2.8363E-07±9.9E-08
090926181	1	-1.024:1.826	SBPL	0.0231 ± 0.0027	−0.779 ± 0.067	−2.067 ± 0.127	380.55 ± 130.97	170.70 ± 28.20	565.14/477	7.6793±0.80	1.7547E-06±1.6E-07
090926181	2	1.826:2.168	SBPL	0.1494 ± 0.0139	−0.427 ± 0.068	−2.301 ± 0.115	287.84 ± 46.91	161.00 ± 17.00	512.74/477	41.907±3.3	1.0453E-05±6.9E-07
090926181	3	2.168:2.425	COMP	0.2473 ± 0.0266	−0.488 ± 0.048	-	385.70 ± 22.50	-	504.45/478	54.135±4.0	1.3664E-05±8.2E-07
090926181	4	2.425:2.625	COMP	0.3109 ± 0.0326	−0.525 ± 0.046	-	405.00 ± 24.00	-	526.67/478	71.391±5.2	1.8256E-05±1.0E-06
090926181	5	2.625:2.865	COMP	0.2579 ± 0.0323	−0.543 ± 0.049	-	337.30 ± 20.30	-	523.8/478	53.683±4.7	1.1930E-05±8.6E-07
090926181	6	2.865:3.071	COMP	0.2236 ± 0.0199	−0.592 ± 0.042	-	564.40 ± 39.00	-	512.12/478	62.734±4.0	1.8869E-05±9.7E-07
090926181	7	3.071:3.228	COMP	0.3339 ± 0.0335	−0.399 ± 0.048	-	431.30 ± 24.30	-	470.87/478	75.518±5.2	2.1655E-05±1.2E-06
090926181	8	3.228:3.364	COMP	0.4095 ± 0.0459	−0.398 ± 0.051	-	369.40 ± 20.60	-	455.62/478	83.340±6.3	2.1360E-05±1.3E-06
090926181	9	3.364:3.516	COMP	0.3896 ± 0.0413	−0.531 ± 0.046	-	380.30 ± 21.60	-	445.74/478	86.483±6.4	2.1097E-05±1.3E-06
090926181	10	3.516:3.676	COMP	0.4066 ± 0.0445	−0.515 ± 0.047	-	365.80 ± 20.60	-	543.91/478	87.416±6.5	2.0921E-05±1.3E-06
090926181	11	3.676:3.840	BAND	0.5208 ± 0.0822	−0.358 ± 0.074	−2.368 ± 0.129	259.30 ± 20.80	161.97 ± 14.80	506.96/477	81.753±7.0	1.7978E-05±1.3E-06
090926181	12	3.840:3.980	COMP	0.4374 ± 0.0545	−0.493 ± 0.049	-	328.20 ± 18.50	-	544.67/478	86.748±7.4	1.9382E-05±1.4E-06
090926181	13	3.980:4.116	SBPL	0.3622 ± 0.0341	−0.500 ± 0.068	−2.228 ± 0.088	257.06 ± 41.98	133.80 ± 13.60	475.85/477	102.16±8.5	2.2586E-05±1.6E-06
090926181	14	4.116:4.246	SBPL	0.3771 ± 0.0357	−0.525 ± 0.068	−2.218 ± 0.093	259.63 ± 46.49	133.10 ± 14.00	506.15/477	107.53±9.0	2.3476E-05±1.6E-06
090926181	15	4.246:4.369	SBPL	0.3825 ± 0.0369	−0.508 ± 0.069	−2.262 ± 0.098	245.92 ± 38.72	134.00 ± 14.00	470.62/477	107.66±9.2	2.3322E-05±1.7E-06
090926181	16	4.369:4.507	BAND	0.5403 ± 0.0849	−0.454 ± 0.073	−2.153 ± 0.089	258.50 ± 23.30	145.83 ± 13.65	552.59/477	91.821±7.9	2.0024E-05±1.4E-06
090926181	17	4.507:4.656	COMP	0.3514 ± 0.0432	−0.641 ± 0.046	-	351.00 ± 22.70	-	477.95/478	79.678±6.9	1.7265E-05±1.2E-06
090926181	18	4.656:4.834	COMP	0.3542 ± 0.0427	−0.686 ± 0.044	-	343.60 ± 22.00	-	504.12/478	81.927±6.9	1.7039E-05±1.2E-06
090926181	19	4.834:5.025	SBPL	0.1937 ± 0.0182	−0.791 ± 0.055	−1.938 ± 0.064	734.41 ± 264.88	161.00 ± 21.90	553.73/477	65.659±5.2	1.5394E-05±1.0E-06
090926181	20	5.025:5.236	BAND	0.2446 ± 0.0347	−0.698 ± 0.060	−2.209 ± 0.125	361.20 ± 41.90	212.58 ± 27.30	484.07/477	59.126±5.0	1.3303E-05±9.2E-07
090926181	21	5.236:5.447	BAND	0.2326 ± 0.0319	−0.714 ± 0.057	−2.271 ± 0.143	396.60 ± 46.30	242.62 ± 32.57	491.22/477	59.113±4.9	1.3723E-05±9.3E-07
090926181	22	5.447:5.677	COMP	0.2774 ± 0.0318	−0.599 ± 0.046	-	363.50 ± 23.10	-	536.94/478	62.388±4.9	1.4191E-05±9.1E-07
090926181	23	5.677:5.945	COMP	0.1927 ± 0.0226	−0.733 ± 0.044	-	401.10 ± 30.40	-	521.87/478	49.438±4.1	1.1047E-05±7.7E-07
090926181	24	5.945:6.183	BAND	0.2067 ± 0.0277	−0.823 ± 0.056	−2.140 ± 0.107	425.50 ± 58.10	240.85 ± 34.65	538.67/477	57.969±4.7	1.3003E-05±8.5E-07
090926181	25	6.183:6.450	COMP	0.1772 ± 0.0196	−0.934 ± 0.040	-	495.80 ± 49.90	-	524.37/478	55.826±4.6	1.2046E-05±7.9E-07
090926181	26	6.450:6.686	COMP	0.1961 ± 0.0183	−0.685 ± 0.041	-	547.50 ± 41.90	-	501.82/478	56.100±3.8	1.5514E-05±8.4E-07
090926181	27	6.686:6.925	COMP	0.2002 ± 0.0175	−0.730 ± 0.037	-	598.60 ± 47.40	-	535.05/478	60.368±3.9	1.6874E-05±8.6E-07
090926181	28	6.925:7.143	COMP	0.2215 ± 0.0230	−0.606 ± 0.044	-	460.40 ± 32.70	-	509.57/478	56.613±4.1	1.4984E-05±8.9E-07
090926181	29	7.143:7.386	COMP	0.2413 ± 0.0320	−0.622 ± 0.049	-	322.30 ± 21.10	-	510.0/478	51.582±4.8	1.0636E-05±8.3E-07
090926181	30	7.386:7.633	COMP	0.2298 ± 0.0353	−0.638 ± 0.053	-	280.50 ± 18.40	-	515.89/478	46.081±5.0	8.5081E-06±8.1E-07
090926181	31	7.633:7.897	COMP	0.2920 ± 0.0492	−0.591 ± 0.054	-	233.60 ± 13.30	-	534.23/478	50.429±6.0	8.2798E-06±8.7E-07
090926181	32	7.897:8.177	COMP	0.1597 ± 0.0248	−0.849 ± 0.048	-	327.00 ± 28.10	-	499.64/478	40.961±4.7	7.4677E-06±7.3E-07
090926181	33	8.177:8.402	COMP	0.3155 ± 0.0458	−0.549 ± 0.052	-	276.60 ± 16.40	-	442.3/478	58.400±5.8	1.1137E-05±9.4E-07

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
090926181	34	8.402:8.642	COMP	0.2433 ± 0.0317	−0.657 ± 0.049	-	326.60 ± 22.10	-	525.31/478	53.734±4.9	1.0967E-05±8.4E-07
090926181	35	8.642:8.891	COMP	0.2812 ± 0.0406	−0.602 ± 0.051	-	278.00 ± 17.10	-	530.35/478	54.459±5.4	1.0164E-05±8.6E-07
090926181	36	8.891:9.158	SBPL	0.2574 ± 0.0349	−0.752 ± 0.056	−3.191 ± 0.306	163.75 ± 22.83	159.70 ± 20.00	484.62/477	75.599±9.5	1.1189E-05±1.2E-06
090926181	37	9.158:9.410	COMP	0.2842 ± 0.0406	−0.751 ± 0.049	-	285.90 ± 19.70	-	506.52/478	63.205±6.2	1.1161E-05±9.1E-07
090926181	38	9.410:9.617	COMP	0.2970 ± 0.0320	−0.625 ± 0.044	-	396.20 ± 25.80	-	525.61/478	71.033±5.3	1.6869E-05±1.0E-06
090926181	39	9.617:9.782	SBPL	0.2889 ± 0.0298	−0.585 ± 0.048	−3.571 ± 0.393	244.98 ± 33.06	253.70 ± 30.50	453.58/477	83.301±7.3	1.7785E-05±1.3E-06
090926181	40	9.782:9.926	SBPL	0.2539 ± 0.0282	−0.938 ± 0.048	−2.319 ± 0.125	277.86 ± 51.03	181.90 ± 25.40	524.87/477	89.091±8.7	1.6717E-05±1.4E-06
090926181	41	9.926:10.034	SBPL	0.4337 ± 0.0503	−1.352 ± 0.037	−2.409 ± 0.156	252.64 ± 58.18	212.30 ± 44.20	489.7/477	205.29±21.0	2.7248E-05±2.3E-06
090926181	42	10.034:10.188	SBPL	0.2543 ± 0.0346	−1.136 ± 0.048	−2.451 ± 0.185	199.78 ± 42.35	156.90 ± 27.20	483.11/477	100.77±13.0	1.4182E-05±1.5E-06
090926181	43	10.188:10.404	COMP	0.3771 ± 0.0954	−0.966 ± 0.059	-	145.20 ± 8.97	-	513.7/478	77.942±15.0	7.8985E-06±1.4E-06
090926181	44	10.404:10.633	COMP	0.3276 ± 0.0637	−0.791 ± 0.055	-	201.40 ± 13.10	-	535.0/478	63.789±9.0	8.6125E-06±1.1E-06
090926181	45	10.633:10.810	COMP	0.4088 ± 0.0736	−0.641 ± 0.057	-	227.90 ± 14.30	-	513.77/478	72.930±9.1	1.1500E-05±1.2E-06
090926181	46	10.810:10.980	COMP	0.4435 ± 0.0753	−0.575 ± 0.056	-	233.30 ± 13.50	-	468.41/478	75.439±8.9	1.2455E-05±1.3E-06
090926181	47	10.980:11.140	COMP	0.4139 ± 0.0560	−0.677 ± 0.048	-	289.90 ± 17.90	-	547.9/478	87.167±8.2	1.6162E-05±1.3E-06
090926181	48	11.140:11.317	COMP	0.3538 ± 0.0477	−0.720 ± 0.046	-	304.60 ± 20.10	-	489.75/478	79.091±7.5	1.4847E-05±1.2E-06
090926181	49	11.317:11.499	SBPL	0.3029 ± 0.0335	−0.812 ± 0.059	−2.398 ± 0.130	192.70 ± 29.81	131.10 ± 16.20	481.48/477	97.547±9.9	1.6257E-05±1.4E-06
090926181	50	11.499:11.668	SBPL	0.2549 ± 0.0360	−0.831 ± 0.069	−2.436 ± 0.154	162.92 ± 28.49	114.70 ± 16.20	454.51/477	84.604±11.0	1.2675E-05±1.4E-06
090926181	51	11.668:11.852	COMP	0.2578 ± 0.0439	−0.947 ± 0.048	-	272.90 ± 23.00	-	492.07/478	67.407±8.5	1.0340E-05±1.1E-06
090926181	52	11.852:12.072	COMP	0.3930 ± 0.0661	−0.817 ± 0.050	-	218.50 ± 13.90	-	506.32/478	81.861±9.7	1.1581E-05±1.2E-06
090926181	53	12.072:12.403	COMP	0.2517 ± 0.0571	−0.925 ± 0.056	-	167.10 ± 10.80	-	517.71/478	52.509±9.0	5.9152E-06±9.4E-07
090926181	54	12.403:13.016	COMP	0.1655 ± 0.0385	−1.098 ± 0.055	-	164.00 ± 12.90	-	525.69/478	42.854±7.4	4.4741E-06±7.0E-07
090926181	55	13.016:13.360	COMP	0.1888 ± 0.0276	−0.754 ± 0.050	-	298.60 ± 22.10	-	560.6/478	42.977±4.4	7.8062E-06±6.7E-07
090926181	56	13.360:13.995	COMP	0.2506 ± 0.0683	−0.765 ± 0.067	-	138.80 ± 7.66	-	461.9/478	38.625±7.9	4.0366E-06±7.8E-07
090926181	57	13.995:15.547	COMP	0.0305 ± 0.0105	−1.305 ± 0.058	-	183.40 ± 23.70	-	563.45/478	10.792±3.2	1.1002E-06±3.1E-07
090926181	58	15.547:16.437	COMP	0.2209 ± 0.0606	−0.700 ± 0.067	-	137.80 ± 7.27	-	533.33/478	31.125±6.4	3.2982E-06±6.4E-07
090926181	59	16.437:23.223	PL	0.0037 ± 0.0013	−1.755 ± 0.025	-	-	-	778.75/479	2.7070±0.95	2.8844E-07±9.9E-08
090926181	60	23.223:43.008	none	-	-	-	-	-	-	-	-
091003191	1	-1.024:1.823	COMP	0.0188 ± 0.0032	−1.065 ± 0.060	-	642.80 ± 144.00	-	377.32/359	6.8681±0.86	1.4608E-06±1.4E-07
091003191	2	1.823:3.909	COMP	0.0296 ± 0.0046	−0.738 ± 0.066	-	472.00 ± 58.70	-	320.58/359	8.1750±0.86	2.0049E-06±1.7E-07
091003191	3	3.909:5.419	COMP	0.0372 ± 0.0068	−0.920 ± 0.064	-	416.30 ± 60.70	-	368.29/359	11.014±1.4	2.1995E-06±2.2E-07
091003191	4	5.419:10.057	COMP	0.0160 ± 0.0058	−1.160 ± 0.089	-	237.20 ± 47.40	-	393.26/359	5.0278±1.3	6.2957E-07±1.5E-07
091003191	5	10.057:15.252	PL	0.0037 ± 0.0011	−1.645 ± 0.031	-	-	-	378.52/360	2.4007±0.71	3.0427E-07±8.6E-08
091003191	6	15.252:16.912	COMP	0.0368 ± 0.0097	−1.088 ± 0.072	-	274.70 ± 44.30	-	374.5/359	11.141±2.1	1.5767E-06±2.5E-07
091003191	7	16.912:17.813	COMP	0.0677 ± 0.0115	−0.916 ± 0.060	-	375.40 ± 47.00	-	365.87/359	19.300±2.3	3.6525E-06±3.3E-07
091003191	8	17.813:18.406	COMP	0.0917 ± 0.0156	−0.912 ± 0.059	-	361.20 ± 42.40	-	409.34/359	25.700±3.0	4.7715E-06±4.4E-07
091003191	9	18.406:18.849	COMP	0.1579 ± 0.0292	−0.543 ± 0.071	-	281.80 ± 22.20	-	384.48/359	29.453±3.5	5.7138E-06±5.5E-07
091003191	10	18.849:19.049	COMP	0.1651 ± 0.0160	−0.641 ± 0.048	-	679.20 ± 59.50	-	360.59/359	50.858±3.7	1.6191E-05±9.0E-07
091003191	11	19.049:19.327	SBPL	0.1287 ± 0.0158	−0.677 ± 0.075	−2.214 ± 0.133	347.79 ± 106.69	182.40 ± 29.40	406.13/358	40.668±4.0	9.6945E-06±7.5E-07
091003191	12	19.327:20.088	SBPL	0.0471 ± 0.0088	−1.015 ± 0.128	−1.932 ± 0.117	219.18 ± 87.44	75.59 ± 22.30	421.32/358	19.779±3.3	2.9502E-06±4.1E-07
091003191	13	20.088:21.385	COMP	0.0537 ± 0.0138	−1.157 ± 0.069	-	247.70 ± 38.00	-	410.81/359	17.039±3.1	2.1873E-06±3.2E-07
091003191	14	21.385:35.840	none	-	-	-	-	-	-	-	-
091010113	1	-1.024:0.358	COMP	0.0309 ± 0.0097	−1.093 ± 0.078	-	260.60 ± 43.70	-	403.63/360	9.2734±2.2	1.2702E-06±2.7E-07
091010113	2	0.358:2.273	PL	0.0052 ± 0.0020	−1.675 ± 0.028	-	-	-	476.09/361	3.5048±1.4	4.2330E-07±1.6E-07
091010113	3	2.273:2.408	COMP	0.8238 ± 0.2350	−0.187 ± 0.093	-	170.90 ± 9.38	-	335.71/360	75.391±14.0	1.0981E-05±1.9E-06
091010113	4	2.408:2.527	COMP	0.8453 ± 0.2740	−0.473 ± 0.087	-	147.70 ± 8.58	-	343.65/360	93.787±22.0	1.1171E-05±2.4E-06
091010113	5	2.527:2.680	COMP	0.7353 ± 0.2840	−0.557 ± 0.094	-	125.30 ± 7.16	-	366.16/360	80.222±23.0	8.2314E-06±2.3E-06
091010113	6	2.680:3.049	PL	0.0150 ± 0.0054	−1.727 ± 0.029	-	-	-	510.54/361	10.595±3.9	1.1790E-06±4.2E-07
091010113	7	3.049:5.265	none	-	-	-	-	-	-	-	-
091010113	8	5.265:7.076	none	-	-	-	-	-	-	-	-
091010113	9	7.076:13.312	none	-	-	-	-	-	-	-	-
091120191	1	-1.024:1.815	COMP	0.0466 ± 0.0113	−0.569 ± 0.083	-	227.50 ± 18.30	-	542.28/479	7.7522±1.3	1.2585E-06±1.9E-07
091120191	2	1.815:3.450	COMP	0.0388 ± 0.0092	−0.985 ± 0.067	-	275.50 ± 34.60	-	601.05/479	10.566±1.9	1.5954E-06±2.5E-07
091120191	3	3.450:9.470	none	-	-	-	-	-	-	-	-

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
091120191	4	9.470:11.651	COMP	0.0377 ± 0.0121	−0.920 ± 0.076	-	194.30 ± 19.20	-	539.49/479	8.3442±2.1	1.0414E-06±2.5E-07
091120191	5	11.651:13.534	COMP	0.0365 ± 0.0106	−0.964 ± 0.071	-	216.70 ± 23.20	-	528.41/479	8.9041±2.0	1.1701E-06±2.5E-07
091120191	6	13.534:18.287	none	-	-	-	-	-	-	-	-
091120191	7	18.287:25.283	none	-	-	-	-	-	-	-	-
091120191	8	25.283:26.523	PL	0.0073 ± 0.0024	−1.622 ± 0.023	-	-	-	609.51/480	4.6481±1.5	6.1142E-07±2.0E-07
091120191	9	26.523:27.117	COMP	0.1690 ± 0.0529	−0.808 ± 0.075	-	152.00 ± 10.70	-	584.08/479	28.976±6.9	3.1875E-06±7.1E-07
091120191	10	27.117:28.652	none	-	-	-	-	-	-	-	-
091120191	11	28.652:33.046	none	-	-	-	-	-	-	-	-
091120191	12	33.046:35.583	none	-	-	-	-	-	-	-	-
091120191	13	35.583:40.960	none	-	-	-	-	-	-	-	-
091120191	14	47.104:51.479	none	-	-	-	-	-	-	-	-
091120191	15	51.479:56.320	none	-	-	-	-	-	-	-	-
091127976	1	-1.024:0.310	SBPL	0.0284 ± 0.0070	−0.697 ± 0.193	−2.238 ± 0.113	78.93 ± 19.14	43.51 ± 8.43	540.91/477	14.715±3.5	1.5395E-06±3.3E-07
091127976	2	0.310:0.414	SBPL	0.1855 ± 0.0390	−0.310 ± 0.275	−2.359 ± 0.086	55.08 ± 9.26	32.21 ± 5.02	445.46/477	113.79±24.0	1.0190E-05±2.0E-06
091127976	3	0.414:0.523	COMP	0.6217 ± 0.1980	−1.297 ± 0.065	-	99.29 ± 6.54	-	473.37/478	182.72±45.0	1.3691E-05±3.2E-06
091127976	4	0.523:0.657	SBPL	0.1324 ± 0.0312	−0.722 ± 0.244	−2.344 ± 0.091	50.74 ± 10.04	32.36 ± 6.08	441.39/477	93.622±22.0	7.6654E-06±1.7E-06
091127976	5	0.657:0.794	SBPL	0.1758 ± 0.0608	−1.210 ± 0.098	−2.920 ± 0.266	68.56 ± 14.39	71.98 ± 14.30	483.07/477	108.82±36.0	8.1590E-06±2.5E-06
091127976	6	0.794:1.028	SBPL	0.1042 ± 0.0331	−1.089 ± 0.155	−2.654 ± 0.161	49.62 ± 10.24	44.30 ± 8.75	473.72/477	82.776±26.0	5.7688E-06±1.7E-06
091127976	7	1.028:1.274	COMP	0.4599 ± 0.1690	−1.245 ± 0.073	-	85.23 ± 5.23	-	518.26/478	117.15±33.0	8.1854E-06±2.2E-06
091127976	8	1.274:1.416	COMP	0.2702 ± 0.0637	−1.255 ± 0.055	-	190.60 ± 20.40	-	487.05/478	90.303±16.0	9.5921E-06±1.5E-06
091127976	9	1.416:1.530	COMP	0.3573 ± 0.0657	−1.211 ± 0.048	-	239.60 ± 25.30	-	482.38/478	119.82±16.0	1.4641E-05±1.7E-06
091127976	10	1.530:1.722	COMP	0.1331 ± 0.0342	−1.435 ± 0.054	-	205.30 ± 32.00	-	501.05/478	57.471±12.0	5.7824E-06±1.0E-06
091127976	11	1.722:2.245	COMP	0.0756 ± 0.0212	−1.513 ± 0.056	-	166.20 ± 26.70	-	508.15/478	35.168±7.8	3.1423E-06±6.2E-07
091127976	12	2.245:3.619	SBPL	0.0221 ± 0.0078	−1.274 ± 0.154	−2.367 ± 0.156	57.39 ± 17.50	44.99 ± 12.80	545.53/477	16.390±5.7	1.2763E-06±4.1E-07
091127976	13	3.619:4.534	none	-	-	-	-	-	-	-	-
091127976	14	4.534:5.815	none	-	-	-	-	-	-	-	-
091127976	15	5.815:6.730	none	-	-	-	-	-	-	-	-
091127976	16	6.730:6.984	none	-	-	-	-	-	-	-	-
091127976	17	6.984:7.276	none	-	-	-	-	-	-	-	-
091127976	18	7.276:7.695	none	-	-	-	-	-	-	-	-
091127976	19	7.695:8.503	none	-	-	-	-	-	-	-	-
091127976	20	8.503:15.360	none	-	-	-	-	-	-	-	-
091128285	1	-41.217:0.003	none	-	-	-	-	-	-	-	-
091128285	2	0.003:5.888	COMP	0.0222 ± 0.0066	−0.848 ± 0.079	-	236.30 ± 29.60	-	422.03/358	4.9626±1.1	7.3022E-07±1.4E-07
091128285	3	5.888:7.936	COMP	0.0519 ± 0.0100	−0.478 ± 0.076	-	306.90 ± 27.40	-	381.47/358	9.7459±1.2	2.0837E-06±2.1E-07
091128285	4	7.936:11.008	COMP	0.0377 ± 0.0088	−0.549 ± 0.074	-	255.60 ± 22.00	-	385.54/358	6.6393±1.1	1.1904E-06±1.8E-07
091128285	5	11.008:14.080	COMP	0.0295 ± 0.0075	−0.675 ± 0.074	-	267.10 ± 27.50	-	405.8/358	5.9453±1.1	1.0392E-06±1.8E-07
091128285	6	14.080:16.128	COMP	0.0262 ± 0.0079	−0.683 ± 0.080	-	272.30 ± 30.90	-	374.3/358	5.3733±1.3	9.4899E-07±2.1E-07
091128285	7	16.128:20.224	none	-	-	-	-	-	-	-	-
091128285	8	20.224:26.368	PL	0.0022 ± 0.0008	−1.486 ± 0.029	-	-	-	475.06/359	1.2176±0.48	1.9933E-07±7.7E-08
091128285	9	26.368:32.513	none	-	-	-	-	-	-	-	-
091128285	10	32.513:38.657	none	-	-	-	-	-	-	-	-
091128285	11	38.657:48.897	none	-	-	-	-	-	-	-	-
091128285	12	48.897:109.314	none	-	-	-	-	-	-	-	-
100122616	1	-4.096:20.213	none	-	-	-	-	-	-	-	-
100122616	2	20.213:20.697	none	-	-	-	-	-	-	-	-
100122616	3	20.697:21.080	none	-	-	-	-	-	-	-	-
100122616	4	21.080:21.471	SBPL	0.0890 ± 0.0281	−1.269 ± 0.164	−2.529 ± 0.195	58.86 ± 18.06	52.41 ± 15.00	367.96/357	64.532±20.0	4.8492E-06±1.3E-06
100122616	5	21.471:21.887	none	-	-	-	-	-	-	-	-
100122616	6	21.887:22.412	SBPL	0.0391 ± 0.0149	−1.086 ± 0.292	−2.341 ± 0.130	48.04 ± 16.21	34.40 ± 10.80	372.79/357	30.907±12.0	2.3523E-06±8.5E-07
100122616	7	22.412:23.200	PL	0.0247 ± 0.0058	−1.902 ± 0.030	-	-	-	420.46/359	21.471±5.3	1.8353E-06±4.3E-07
100122616	8	23.200:24.909	PL	0.0128 ± 0.0042	−1.975 ± 0.033	-	-	-	420.62/359	12.247±4.1	9.4436E-07±3.1E-07
100122616	9	24.909:37.888	none	-	-	-	-	-	-	-	-

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
100322045	1	-1.024:1.310	COMP	0.0621 ± 0.0163	−0.569 ± 0.082	-	194.60 ± 13.90	-	513.2/478	9.3515±1.7	1.3415E-06±2.3E-07
100322045	2	1.310:2.025	COMP	0.2062 ± 0.0509	−0.399 ± 0.080	-	173.60 ± 9.31	-	543.72/478	23.882±4.1	3.3100E-06±5.2E-07
100322045	3	2.025:4.613	COMP	0.0996 ± 0.0397	−0.526 ± 0.098	-	132.90 ± 8.03	-	585.84/478	10.910±3.3	1.1792E-06±3.4E-07
100322045	4	4.613:5.445	COMP	0.1390 ± 0.0392	−0.588 ± 0.081	-	172.50 ± 11.30	-	507.71/478	19.730±4.0	2.5598E-06±4.8E-07
100322045	5	5.445:6.617	COMP	0.1500 ± 0.0528	−0.739 ± 0.085	-	132.50 ± 8.54	-	571.15/478	21.742±5.7	2.2140E-06±5.5E-07
100322045	6	6.617:7.446	SBPL	0.0746 ± 0.0264	−0.732 ± 0.111	−3.179 ± 0.374	92.55 ± 17.60	89.88 ± 15.50	511.54/477	27.305±9.1	2.7280E-06±8.3E-07
100322045	7	7.446:8.748	COMP	0.1139 ± 0.0338	−0.673 ± 0.083	-	159.20 ± 10.80	-	520.68/478	16.962±3.6	2.0136E-06±4.0E-07
100322045	8	8.748:10.811	PL	0.0050 ± 0.0020	−1.709 ± 0.026	-	-	-	633.37/479	3.5002±1.4	3.9997E-07±1.6E-07
100322045	9	10.811:19.941	PL	0.0030 ± 0.0008	−1.629 ± 0.028	-	-	-	743.71/479	1.9440±0.52	2.5226E-07±6.4E-08
100322045	10	19.941:22.483	COMP	0.0334 ± 0.0083	−0.988 ± 0.070	-	238.50 ± 28.20	-	538.27/478	8.6842±1.6	1.1967E-06±1.9E-07
100322045	11	22.483:26.449	SBPL	0.0120 ± 0.0024	−0.785 ± 0.206	−1.791 ± 0.086	-	55.10 ± 16.20	670.54/477	4.9023±0.89	8.1437E-07±1.3E-07
100322045	12	26.449:28.506	COMP	0.0306 ± 0.0037	−0.706 ± 0.057	-	534.90 ± 56.30	-	546.61/478	8.7507±0.76	2.3505E-06±1.7E-07
100322045	13	28.506:29.803	COMP	0.0293 ± 0.0034	−0.751 ± 0.055	-	739.10 ± 97.10	-	498.19/478	9.5699±0.84	2.8841E-06±2.1E-07
100322045	14	29.803:31.290	COMP	0.0320 ± 0.0031	−0.897 ± 0.044	-	930.30 ± 133.00	-	491.49/478	11.609±0.89	3.3043E-06±2.1E-07
100322045	15	31.290:32.307	COMP	0.0491 ± 0.0040	−0.712 ± 0.045	-	855.70 ± 85.10	-	519.02/478	16.646±1.1	5.4921E-06±2.7E-07
100322045	16	32.307:33.125	COMP	0.0587 ± 0.0053	−0.696 ± 0.048	-	718.10 ± 69.50	-	485.2/478	18.691±1.3	5.8302E-06±3.1E-07
100322045	17	33.125:34.013	COMP	0.0545 ± 0.0057	−0.663 ± 0.052	-	601.70 ± 57.40	-	512.38/478	16.077±1.2	4.7432E-06±2.9E-07
100322045	18	34.013:34.908	COMP	0.0454 ± 0.0051	−0.864 ± 0.048	-	736.10 ± 98.20	-	549.45/478	15.373±1.3	4.1776E-06±2.9E-07
100322045	19	34.908:35.798	BAND	0.0428 ± 0.0050	−0.906 ± 0.053	−1.981 ± 0.106	853.10 ± 178.00	418.56 ± 90.17	524.26/477	15.292±1.2	4.2003E-06±2.8E-07
100322045	20	35.798:36.765	COMP	0.0496 ± 0.0052	−0.954 ± 0.044	-	753.20 ± 105.00	-	519.85/478	17.564±1.4	4.4116E-06±2.8E-07
100322045	21	36.765:37.793	COMP	0.0469 ± 0.0057	−0.886 ± 0.050	-	582.20 ± 72.90	-	575.45/478	15.067±1.4	3.6453E-06±2.7E-07
100322045	22	37.793:39.936	COMP	0.0262 ± 0.0047	−0.984 ± 0.062	-	437.90 ± 69.70	-	587.47/478	8.2626±1.1	1.6088E-06±1.7E-07
100324172	1	-2.048:1.576	COMP	0.0285 ± 0.0024	0.224 ± 0.085	-	516.90 ± 26.90	-	504.94/478	6.9951±0.36	3.0068E-06±1.3E-07
100324172	2	1.576:2.253	COMP	0.1086 ± 0.0098	0.098 ± 0.067	-	457.80 ± 21.70	-	487.92/478	23.268±1.3	8.7312E-06±4.0E-07
100324172	3	2.253:3.030	COMP	0.0951 ± 0.0085	−0.147 ± 0.057	-	483.50 ± 25.70	-	491.37/478	22.010±1.3	7.7682E-06±3.7E-07
100324172	4	3.030:3.777	COMP	0.1191 ± 0.0130	−0.262 ± 0.058	-	393.20 ± 22.50	-	470.17/478	23.948±1.7	6.8733E-06±3.9E-07
100324172	5	3.777:4.686	COMP	0.1323 ± 0.0190	−0.283 ± 0.063	-	282.10 ± 15.20	-	542.11/478	20.541±1.9	4.4638E-06±3.6E-07
100324172	6	4.686:5.109	COMP	0.1854 ± 0.0222	−0.403 ± 0.052	-	355.70 ± 20.90	-	519.89/478	36.843±2.9	9.1516E-06±6.0E-07
100324172	7	5.109:5.622	COMP	0.1857 ± 0.0252	−0.326 ± 0.059	-	307.80 ± 17.30	-	534.34/478	31.781±2.8	7.2954E-06±5.3E-07
100324172	8	5.622:6.838	COMP	0.0884 ± 0.0134	−0.583 ± 0.056	-	292.00 ± 20.00	-	484.05/478	17.363±1.8	3.3955E-06±3.0E-07
100324172	9	6.838:14.377	COMP	0.0266 ± 0.0074	−0.976 ± 0.066	-	189.50 ± 18.50	-	565.47/478	6.2384±1.3	7.4743E-07±1.5E-07
100324172	10	14.377:29.696	none	-	-	-	-	-	-	-	-
100414097	1	-2.048:5.452	SBPL	0.0144 ± 0.0009	−0.548 ± 0.047	−2.307 ± 0.124	561.48 ± 97.43	326.70 ± 36.00	834.78/476	5.2792±0.27	1.8323E-06±7.4E-08
100414097	2	5.452:7.235	COMP	0.0367 ± 0.0028	−0.325 ± 0.055	-	685.20 ± 44.40	-	604.34/477	11.017±0.58	4.3785E-06±1.8E-07
100414097	3	7.235:9.194	COMP	0.0385 ± 0.0033	−0.300 ± 0.058	-	549.20 ± 34.10	-	582.81/477	10.018±0.58	3.5615E-06±1.7E-07
100414097	4	9.194:10.860	COMP	0.0387 ± 0.0031	−0.226 ± 0.061	-	608.70 ± 37.50	-	634.89/477	10.757±0.59	4.2355E-06±1.8E-07
100414097	5	10.860:13.148	COMP	0.0303 ± 0.0023	−0.373 ± 0.053	-	696.60 ± 46.90	-	540.83/477	9.1799±0.49	3.5720E-06±1.5E-07
100414097	6	13.148:14.896	COMP	0.0386 ± 0.0030	−0.412 ± 0.053	-	655.30 ± 45.30	-	610.65/477	11.303±0.63	4.1579E-06±1.8E-07
100414097	7	14.896:16.047	COMP	0.0428 ± 0.0040	−0.639 ± 0.048	-	686.40 ± 63.30	-	551.83/477	13.232±0.90	4.2390E-06±2.3E-07
100414097	8	16.047:17.090	COMP	0.0562 ± 0.0060	−0.579 ± 0.053	-	513.80 ± 41.60	-	535.66/477	15.002±1.1	4.3150E-06±2.6E-07
100414097	9	17.090:18.209	COMP	0.0529 ± 0.0049	−0.583 ± 0.049	-	593.10 ± 47.40	-	531.47/477	15.171±1.0	4.7133E-06±2.5E-07
100414097	10	18.209:19.913	COMP	0.0358 ± 0.0028	−0.518 ± 0.049	-	737.10 ± 57.60	-	606.28/477	11.213±0.64	4.0637E-06±1.8E-07
100414097	11	19.913:21.046	SBPL	0.0436 ± 0.0042	−0.608 ± 0.066	−2.046 ± 0.091	522.27 ± 182.03	200.10 ± 26.80	595.19/476	14.245±1.1	3.9992E-06±2.5E-07
100414097	12	21.046:21.968	COMP	0.0495 ± 0.0052	−0.722 ± 0.048	-	626.00 ± 63.10	-	564.32/477	15.138±1.2	4.3476E-06±2.7E-07
100414097	13	21.968:22.833	COMP	0.0537 ± 0.0048	−0.782 ± 0.043	-	774.80 ± 81.90	-	534.69/477	17.936±1.2	5.3622E-06±2.9E-07
100414097	14	22.833:23.617	COMP	0.0696 ± 0.0071	−0.778 ± 0.046	-	567.30 ± 54.20	-	555.47/477	21.025±1.6	5.5039E-06±3.2E-07
100414097	15	23.617:24.107	BAND	0.1240 ± 0.0175	−0.554 ± 0.070	−2.272 ± 0.143	400.10 ± 45.70	240.44 ± 30.15	523.97/476	28.955±2.3	7.5020E-06±4.6E-07
100414097	16	24.107:63.488	PL	0.0028 ± 0.0003	−1.390 ± 0.022	-	-	-	3036.0/478	1.4477±0.16	2.7688E-07±2.4E-08
100511035	1	-1.024:11.065	none	-	-	-	-	-	-	-	-
100511035	2	11.065:19.223	none	-	-	-	-	-	-	-	-
100511035	3	19.223:24.113	PL	0.0029 ± 0.0006	−1.379 ± 0.029	-	-	-	666.38/479	1.4975±0.35	2.9172E-07±6.1E-08
100511035	4	24.113:25.195	COMP	0.0427 ± 0.0056	−0.876 ± 0.052	-	669.20 ± 98.20	-	537.88/478	14.171±1.4	3.6731E-06±2.9E-07
100511035	5	25.195:26.713	COMP	0.0331 ± 0.0053	−0.975 ± 0.056	-	566.90 ± 96.30	-	498.84/478	11.091±1.3	2.4513E-06±2.4E-07

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GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
100511035	6	26.713:30.139	COMP	0.0113 ± 0.0031	−1.203 ± 0.069	-	553.70 ± 178.00	-	596.5/478	4.4477±0.99	7.8200E-07±1.5E-07
100511035	7	30.139:39.936	none	-	-	-	-	-	-	-	-
100612726	1	-1.024:2.358	COMP	0.0505 ± 0.0115	−0.614 ± 0.062	-	230.10 ± 15.30	-	569.04/480	8.8269±1.6	1.4190E-06±2.4E-07
100612726	2	2.358:3.324	BAND	0.3890 ± 0.1230	−0.166 ± 0.108	−2.721 ± 0.228	116.40 ± 6.75	85.01 ± 7.99	547.34/479	24.484±6.9	3.0897E-06±8.0E-07
100612726	3	3.324:3.944	BAND	0.4545 ± 0.1360	−0.246 ± 0.113	−2.517 ± 0.174	114.30 ± 7.53	77.84 ± 6.77	544.32/479	31.545±7.9	4.0479E-06±9.4E-07
100612726	4	3.944:4.532	COMP	0.4298 ± 0.1500	−0.555 ± 0.072	-	126.50 ± 5.61	-	531.64/480	47.112±14.0	4.8722E-06±1.4E-06
100612726	5	4.532:5.233	PL	0.0117 ± 0.0039	−1.607 ± 0.021	-	-	-	896.77/481	7.2790±2.5	9.8152E-07±3.3E-07
100612726	6	5.233:6.895	PL	0.0092 ± 0.0034	−1.742 ± 0.022	-	-	-	750.92/481	6.6147±2.5	7.2009E-07±2.6E-07
100612726	7	6.895:20.480	none	-	-	-	-	-	-	-	-
100707032	1	-1.024:0.784	BAND	0.0280 ± 0.0030	0.481 ± 0.142	−2.324 ± 0.123	611.10 ± 51.40	349.75 ± 29.87	419.06/356	9.0092±0.50	4.7659E-06±2.1E-07
100707032	2	0.784:1.085	SBPL	0.0883 ± 0.0088	0.248 ± 0.122	−2.476 ± 0.128	495.33 ± 64.75	287.80 ± 31.00	394.55/356	36.922±2.2	1.7207E-05±7.8E-07
100707032	3	1.085:1.321	SBPL	0.1365 ± 0.0139	0.260 ± 0.130	−2.355 ± 0.103	444.31 ± 58.79	232.30 ± 24.10	430.97/356	48.126±3.1	2.0259E-05±9.8E-07
100707032	4	1.321:1.517	SBPL	0.1067 ± 0.0119	0.249 ± 0.129	−2.319 ± 0.107	498.99 ± 75.11	252.60 ± 28.10	383.28/356	41.056±2.9	1.8347E-05±1.0E-06
100707032	5	1.517:1.702	COMP	0.1833 ± 0.0188	0.051 ± 0.078	-	566.10 ± 34.20	-	373.54/357	48.783±3.2	2.0929E-05±1.1E-06
100707032	6	1.702:1.897	SBPL	0.2064 ± 0.0230	0.336 ± 0.144	−2.433 ± 0.124	324.20 ± 43.27	179.90 ± 18.80	426.0/356	57.324±4.4	2.0312E-05±1.2E-06
100707032	7	1.897:2.099	SBPL	0.1959 ± 0.0219	0.501 ± 0.174	−2.349 ± 0.119	305.59 ± 45.76	153.90 ± 16.00	369.48/356	50.001±4.1	1.7190E-05±1.1E-06
100707032	8	2.099:2.298	BAND	0.2678 ± 0.0508	0.243 ± 0.127	−2.400 ± 0.168	353.50 ± 33.20	211.55 ± 21.46	382.13/356	42.708±3.8	1.4684E-05±1.0E-06
100707032	9	2.298:2.516	COMP	0.2396 ± 0.0324	−0.024 ± 0.083	-	389.00 ± 23.90	-	372.05/357	44.251±3.7	1.3934E-05±9.5E-07
100707032	10	2.516:2.740	COMP	0.2067 ± 0.0346	0.146 ± 0.096	-	339.10 ± 20.50	-	364.98/357	31.286±3.3	9.2988E-06±8.4E-07
100707032	11	2.740:2.990	SBPL	0.1467 ± 0.0194	−0.042 ± 0.124	−2.400 ± 0.164	259.23 ± 46.75	148.00 ± 18.60	367.05/356	36.431±4.0	9.9235E-06±9.2E-07
100707032	12	2.990:3.233	COMP	0.5019 ± 0.1130	0.205 ± 0.106	-	231.20 ± 12.70	-	397.34/357	46.259±6.1	9.8339E-06±1.1E-06
100707032	13	3.233:3.480	SBPL	0.1784 ± 0.0296	0.063 ± 0.158	−2.473 ± 0.191	180.42 ± 33.93	107.30 ± 14.60	330.39/356	40.137±6.0	8.7272E-06±1.1E-06
100707032	14	3.480:3.737	COMP	0.4756 ± 0.1170	0.005 ± 0.101	-	209.30 ± 12.00	-	363.65/357	45.042±6.9	8.2797E-06±1.1E-06
100707032	15	3.737:3.995	COMP	0.7737 ± 0.2040	0.121 ± 0.109	-	187.10 ± 9.78	-	406.82/357	58.443±9.1	9.9964E-06±1.4E-06
100707032	16	3.995:4.271	COMP	0.4646 ± 0.1280	−0.070 ± 0.103	-	187.30 ± 10.70	-	355.67/357	41.634±7.6	6.7839E-06±1.1E-06
100707032	17	4.271:4.556	BAND	1.0310 ± 0.3440	0.399 ± 0.191	−2.385 ± 0.174	133.40 ± 10.90	81.33 ± 7.28	361.75/356	40.689±7.5	7.2323E-06±1.1E-06
100707032	18	4.556:4.852	COMP	0.4672 ± 0.1610	−0.178 ± 0.106	-	158.50 ± 9.09	-	366.21/357	39.363±9.7	5.3864E-06±1.2E-06
100707032	19	4.852:5.189	BAND	0.5867 ± 0.2270	0.195 ± 0.201	−2.263 ± 0.162	118.60 ± 11.50	70.29 ± 7.08	387.67/356	25.104±6.0	4.0715E-06±8.7E-07
100707032	20	5.189:5.613	COMP	0.4259 ± 0.1410	−0.280 ± 0.104	-	157.20 ± 9.54	-	413.59/357	39.806±8.9	5.2616E-06±1.1E-06
100707032	21	5.613:6.078	COMP	0.2871 ± 0.0967	−0.344 ± 0.103	-	167.10 ± 11.20	-	410.16/357	30.348±7.1	4.1476E-06±9.0E-07
100707032	22	6.078:6.689	COMP	0.1890 ± 0.0730	−0.279 ± 0.106	-	163.70 ± 10.50	-	382.08/357	18.306±5.5	2.5052E-06±7.1E-07
100707032	23	6.689:7.358	COMP	0.2207 ± 0.0876	−0.350 ± 0.106	-	153.20 ± 10.20	-	403.09/357	21.819±6.5	2.7694E-06±7.8E-07
100707032	24	7.358:8.001	SBPL	0.0809 ± 0.0321	−0.741 ± 0.093	−3.934 ± 0.990	134.47 ± 38.79	152.20 ± 35.80	395.2/356	23.332±8.9	2.8134E-06±9.7E-07
100707032	25	8.001:8.749	PL	0.0058 ± 0.0017	−1.375 ± 0.027	-	-	-	619.86/358	2.9860±0.92	5.8665E-07±1.7E-07
100707032	26	8.749:9.496	SBPL	0.0369 ± 0.0135	−0.387 ± 0.203	−2.339 ± 0.196	113.65 ± 33.33	65.11 ± 13.20	370.99/356	12.413±4.3	1.7197E-06±5.5E-07
100707032	27	9.496:10.332	PL	0.0067 ± 0.0019	−1.424 ± 0.027	-	-	-	481.85/358	3.5711±1.1	6.4793E-07±1.8E-07
100707032	28	10.332:11.232	PL	0.0050 ± 0.0019	−1.452 ± 0.028	-	-	-	574.19/358	2.7292±1.1	4.7292E-07±1.8E-07
100707032	29	11.232:12.226	none	-	-	-	-	-	-	-	-
100707032	30	12.226:13.348	PL	0.0064 ± 0.0024	−1.561 ± 0.030	-	-	-	533.38/358	3.8384±1.5	5.5754E-07±2.1E-07
100707032	31	13.348:14.669	none	-	-	-	-	-	-	-	-
100707032	32	14.669:16.372	none	-	-	-	-	-	-	-	-
100707032	33	16.372:18.635	none	-	-	-	-	-	-	-	-
100707032	34	18.635:21.239	PL	0.0116 ± 0.0034	−1.893 ± 0.036	-	-	-	484.17/358	9.9428±3.1	8.6263E-07±2.5E-07
100707032	35	21.239:25.985	none	-	-	-	-	-	-	-	-
100707032	36	25.985:36.370	none	-	-	-	-	-	-	-	-
100707032	37	36.370:52.131	none	-	-	-	-	-	-	-	-
100707032	38	52.131:69.442	PL	0.0026 ± 0.0009	−1.704 ± 0.041	-	-	-	567.53/358	1.8103±0.63	2.0911E-07±6.9E-08
100707032	39	69.442:93.238	none	-	-	-	-	-	-	-	-
100707032	40	93.238:97.280	none	-	-	-	-	-	-	-	-
100719989	1	-4.096:2.131	SBPL	0.0200 ± 0.0021	−0.290 ± 0.128	−2.158 ± 0.103	365.27 ± 117.22	158.00 ± 20.80	524.51/358	5.5903±0.46	1.5746E-06±9.9E-08
100719989	2	2.131:2.396	COMP	0.1869 ± 0.0168	−0.401 ± 0.056	-	529.90 ± 32.00	-	327.54/359	48.261±3.2	1.5832E-05±7.8E-07
100719989	3	2.396:2.563	COMP	0.2391 ± 0.0183	−0.703 ± 0.042	-	789.20 ± 58.90	-	393.79/359	78.822±5.0	2.5428E-05±1.2E-06
100719989	4	2.563:2.753	SBPL	0.2742 ± 0.0292	−0.555 ± 0.081	−2.253 ± 0.095	303.80 ± 51.45	164.60 ± 20.60	426.43/358	80.945±6.8	1.9379E-05±1.3E-06

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
100719989	5	2.753:3.092	COMP	0.2058 ± 0.0283	−0.664 ± 0.059	-	339.70 ± 25.70	-	426.22/359	46.621±4.4	9.7395E-06±7.0E-07
100719989	6	3.092:3.560	COMP	0.2252 ± 0.0333	−0.355 ± 0.070	-	280.20 ± 16.20	-	361.77/359	36.495±3.4	7.6587E-06±5.7E-07
100719989	7	3.560:3.917	SBPL	0.1620 ± 0.0203	−0.401 ± 0.101	−2.531 ± 0.169	193.65 ± 30.29	131.70 ± 16.90	395.92/358	42.099±4.7	8.4455E-06±7.7E-07
100719989	8	3.917:4.211	SBPL	0.1827 ± 0.0222	−0.513 ± 0.087	−2.557 ± 0.172	212.13 ± 33.78	150.30 ± 19.70	414.64/358	49.997±5.3	1.0213E-05±8.7E-07
100719989	9	4.211:4.417	SBPL	0.2495 ± 0.0260	−0.366 ± 0.112	−2.140 ± 0.085	277.54 ± 76.16	117.40 ± 14.40	387.81/358	67.611±6.0	1.5476E-05±1.1E-06
100719989	10	4.417:4.614	COMP	0.3163 ± 0.0466	−0.531 ± 0.062	-	307.80 ± 20.20	-	378.18/359	61.755±6.2	1.2895E-05±1.0E-06
100719989	11	4.614:4.909	COMP	0.2774 ± 0.0505	−0.540 ± 0.071	-	244.70 ± 16.30	-	436.49/359	47.177±5.7	8.2068E-06±8.1E-07
100719989	12	4.909:5.475	COMP	0.2691 ± 0.0682	−0.563 ± 0.085	-	170.10 ± 10.70	-	413.77/359	36.745±6.1	4.7585E-06±7.0E-07
100719989	13	5.475:6.634	COMP	0.0728 ± 0.0259	−0.912 ± 0.085	-	157.30 ± 14.00	-	423.41/359	14.537±4.0	1.5799E-06±4.1E-07
100719989	14	6.634:20.507	none	-	-	-	-	-	-	-	-
100719989	15	20.507:22.686	BAND	0.0391 ± 0.0087	−0.933 ± 0.098	−1.955 ± 0.111	277.40 ± 59.80	135.76 ± 29.90	461.13/358	10.396±1.3	1.8491E-06±1.9E-07
100719989	16	22.686:34.816	PL	0.0038 ± 0.0008	−1.655 ± 0.040	-	-	-	931.81/360	2.4605±0.58	3.0675E-07±6.3E-08
100722096	1	-2.048:0.500	none	-	-	-	-	-	-	-	-
100722096	2	0.500:1.073	none	-	-	-	-	-	-	-	-
100722096	3	1.073:1.729	PL	0.0118 ± 0.0042	−1.777 ± 0.024	-	-	-	692.16/480	8.8441±3.2	9.1026E-07±3.2E-07
100722096	4	1.729:2.093	PL	0.0156 ± 0.0045	−1.659 ± 0.022	-	-	-	676.43/480	10.262±3.0	1.2701E-06±3.6E-07
100722096	5	2.093:2.957	PL	0.0109 ± 0.0036	−1.791 ± 0.023	-	-	-	628.84/480	8.3307±2.8	8.3873E-07±2.8E-07
100722096	6	2.957:3.397	BAND	0.1809 ± 0.0703	−0.702 ± 0.110	−2.576 ± 0.236	102.00 ± 8.75	77.15 ± 10.39	521.54/478	21.584±7.8	2.2086E-06±7.5E-07
100722096	7	3.397:6.197	none	-	-	-	-	-	-	-	-
100722096	8	6.197:12.288	none	-	-	-	-	-	-	-	-
100724029	1	-37.889:4.096	BAND	0.0048 ± 0.0014	−0.654 ± 0.152	−1.624 ± 0.079	238.50 ± 63.60	88.98 ± 23.24	563.08/477	0.95837±0.16	2.1635E-07±3.0E-08
100724029	2	4.096:8.192	BAND	0.0198 ± 0.0022	−0.784 ± 0.053	−1.883 ± 0.081	653.60 ± 108.00	298.30 ± 49.39	490.79/477	6.2907±0.45	1.7724E-06±1.0E-07
100724029	3	8.192:10.240	SBPL	0.0321 ± 0.0029	−0.682 ± 0.061	−1.821 ± 0.058	-	159.40 ± 20.90	472.97/477	10.659±0.79	2.8408E-06±1.7E-07
100724029	4	10.240:11.264	SBPL	0.0345 ± 0.0037	−0.714 ± 0.064	−1.853 ± 0.079	-	192.60 ± 31.80	534.26/477	11.906±1.1	3.3137E-06±2.4E-07
100724029	5	11.264:13.312	SBPL	0.0318 ± 0.0027	−0.742 ± 0.049	−1.840 ± 0.059	-	183.10 ± 23.30	506.95/477	10.987±0.75	2.9541E-06±1.7E-07
100724029	6	13.312:14.336	BAND	0.0465 ± 0.0075	−0.613 ± 0.076	−2.046 ± 0.130	439.70 ± 66.40	229.77 ± 36.83	500.0/477	11.787±1.1	3.1556E-06±2.4E-07
100724029	7	14.336:15.360	BAND	0.0448 ± 0.0056	−0.765 ± 0.057	−1.843 ± 0.074	613.50 ± 107.00	270.57 ± 46.79	480.82/477	13.880±1.1	3.8943E-06±2.4E-07
100724029	8	15.360:16.384	SBPL	0.0450 ± 0.0043	−0.725 ± 0.057	−1.843 ± 0.061	-	186.90 ± 26.80	495.47/477	15.507±1.2	4.2507E-06±2.6E-07
100724029	9	16.384:17.408	SBPL	0.0401 ± 0.0039	−0.763 ± 0.056	−1.774 ± 0.058	-	199.30 ± 31.90	554.07/477	14.350±1.1	4.0483E-06±2.5E-07
100724029	10	17.408:18.432	SBPL	0.0428 ± 0.0042	−0.716 ± 0.058	−1.887 ± 0.070	-	198.80 ± 29.30	481.03/477	14.771±1.1	4.1001E-06±2.6E-07
100724029	11	18.432:19.456	SBPL	0.0329 ± 0.0036	−0.844 ± 0.053	−1.863 ± 0.080	-	250.00 ± 47.40	438.31/477	12.348±1.1	3.4333E-06±2.4E-07
100724029	12	19.456:20.480	SBPL	0.0331 ± 0.0037	−0.870 ± 0.051	−1.967 ± 0.102	764.11 ± 266.93	266.40 ± 51.50	483.84/477	12.485±1.1	3.3545E-06±2.4E-07
100724029	13	20.480:22.528	BAND	0.0462 ± 0.0065	−0.650 ± 0.066	−1.785 ± 0.057	337.20 ± 44.20	145.44 ± 18.67	473.51/477	10.711±0.83	2.6016E-06±1.7E-07
100724029	14	22.528:24.576	BAND	0.0479 ± 0.0066	−0.755 ± 0.058	−2.056 ± 0.102	383.30 ± 49.30	203.93 ± 27.72	471.26/477	12.372±0.98	2.8091E-06±1.8E-07
100724029	15	24.576:26.624	BAND	0.0466 ± 0.0075	−0.660 ± 0.071	−1.984 ± 0.093	330.80 ± 43.30	167.28 ± 22.33	480.83/477	10.627±0.95	2.4293E-06±1.8E-07
100724029	16	26.624:30.720	BAND	0.0221 ± 0.0034	−0.900 ± 0.059	−1.935 ± 0.107	407.00 ± 70.30	193.86 ± 34.88	506.05/477	6.4584±0.63	1.3723E-06±1.1E-07
100724029	17	30.720:34.817	BAND	0.0224 ± 0.0054	−0.755 ± 0.115	−1.735 ± 0.084	208.40 ± 43.30	85.58 ± 17.22	456.31/477	4.5620±0.69	8.8105E-07±1.2E-07
100724029	18	34.817:38.913	COMP	0.0222 ± 0.0032	−0.938 ± 0.047	-	414.00 ± 48.40	-	436.74/478	6.6253±0.70	1.3022E-06±1.1E-07
100724029	19	38.913:39.937	BAND	0.0830 ± 0.0158	−0.634 ± 0.083	−2.167 ± 0.141	284.00 ± 36.70	162.39 ± 22.85	461.24/477	17.056±1.8	3.5444E-06±3.0E-07
100724029	20	39.937:41.985	SBPL	0.0272 ± 0.0032	−0.805 ± 0.062	−2.005 ± 0.110	362.42 ± 127.97	141.00 ± 22.10	434.0/477	9.0772±0.97	1.9193E-06±1.8E-07
100724029	21	41.985:45.057	COMP	0.0384 ± 0.0067	−0.829 ± 0.055	-	278.30 ± 24.90	-	504.23/478	9.0373±1.1	1.5017E-06±1.5E-07
100724029	22	45.057:47.105	COMP	0.0333 ± 0.0049	−0.797 ± 0.050	-	383.50 ± 37.30	-	556.26/478	8.7331±0.94	1.8189E-06±1.7E-07
100724029	23	47.105:49.153	COMP	0.0363 ± 0.0057	−0.894 ± 0.051	-	378.30 ± 42.70	-	491.69/478	10.191±1.1	1.9689E-06±1.8E-07
100724029	24	49.153:53.249	BAND	0.0258 ± 0.0054	−0.724 ± 0.095	−1.801 ± 0.086	199.70 ± 31.40	87.73 ± 13.66	514.81/477	4.9519±0.71	9.2690E-07±1.2E-07
100724029	25	53.249:55.297	COMP	0.0371 ± 0.0046	−0.845 ± 0.043	-	452.80 ± 44.10	-	463.06/478	10.713±0.95	2.3725E-06±1.7E-07
100724029	26	55.297:56.321	COMP	0.0761 ± 0.0099	−0.657 ± 0.051	-	361.00 ± 27.70	-	493.07/478	17.695±1.6	3.8716E-06±2.7E-07
100724029	27	56.321:57.345	COMP	0.0463 ± 0.0053	−0.823 ± 0.043	-	565.90 ± 60.60	-	506.71/478	14.253±1.2	3.5939E-06±2.5E-07
100724029	28	57.345:58.369	COMP	0.0490 ± 0.0066	−0.765 ± 0.050	-	445.40 ± 44.30	-	493.78/478	13.390±1.3	3.1155E-06±2.5E-07
100724029	29	58.369:59.393	COMP	0.0693 ± 0.0067	−0.736 ± 0.037	-	486.10 ± 36.20	-	526.12/478	19.303±1.3	4.8185E-06±2.7E-07
100724029	30	59.393:60.417	SBPL	0.0642 ± 0.0057	−0.797 ± 0.042	−2.259 ± 0.122	342.56 ± 71.22	199.60 ± 24.20	535.94/477	21.423±1.6	4.8267E-06±3.0E-07
100724029	31	60.417:61.441	BAND	0.1114 ± 0.0150	−0.562 ± 0.059	−2.198 ± 0.106	302.10 ± 26.80	175.38 ± 17.32	467.44/477	22.448±1.7	5.0011E-06±3.1E-07
100724029	32	61.441:62.465	SBPL	0.0743 ± 0.0060	−0.715 ± 0.047	−2.088 ± 0.078	416.06 ± 140.47	171.70 ± 18.50	503.19/477	24.029±1.6	5.7076E-06±3.1E-07
100724029	33	62.465:63.489	SBPL	0.0800 ± 0.0055	−0.738 ± 0.039	−1.977 ± 0.056	687.44 ± 221.21	186.20 ± 18.10	474.83/477	26.948±1.5	6.8841E-06±3.1E-07

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
100724029	34	63.489:64.513	BAND	0.1128 ± 0.0140	−0.557 ± 0.056	−2.082 ± 0.079	328.00 ± 29.90	177.27 ± 16.65	467.91/477	23.837±1.6	5.6749E-06±3.1E-07
100724029	35	64.513:65.537	BAND	0.0839 ± 0.0113	−0.652 ± 0.057	−2.121 ± 0.107	344.80 ± 36.50	190.94 ± 21.87	478.39/477	19.303±1.5	4.4211E-06±2.8E-07
100724029	36	65.537:66.561	BAND	0.0784 ± 0.0092	−0.697 ± 0.050	−2.195 ± 0.122	429.40 ± 46.30	249.11 ± 29.93	508.5/477	20.415±1.4	5.0252E-06±2.8E-07
100724029	37	66.561:67.585	COMP	0.0767 ± 0.0066	−0.764 ± 0.034	-	532.90 ± 38.70	-	538.78/478	22.468±1.4	5.7674E-06±2.9E-07
100724029	38	67.585:68.609	COMP	0.0702 ± 0.0078	−0.744 ± 0.041	-	417.70 ± 31.90	-	496.43/478	18.443±1.5	4.1937E-06±2.7E-07
100724029	39	68.609:69.633	COMP	0.0671 ± 0.0071	−0.772 ± 0.039	-	464.60 ± 37.20	-	513.37/478	18.735±1.4	4.4414E-06±2.7E-07
100724029	40	69.633:70.657	COMP	0.0602 ± 0.0069	−0.852 ± 0.040	-	475.30 ± 44.60	-	538.34/478	17.762±1.5	4.0123E-06±2.7E-07
100724029	41	70.657:71.681	SBPL	0.0505 ± 0.0057	−0.773 ± 0.064	−2.078 ± 0.110	332.87 ± 115.55	147.00 ± 21.70	537.22/477	16.447±1.6	3.4920E-06±2.9E-07
100724029	42	71.681:72.705	BAND	0.0619 ± 0.0131	−0.607 ± 0.091	−2.047 ± 0.141	252.20 ± 34.40	133.27 ± 20.08	454.75/477	11.759±1.5	2.3931E-06±2.7E-07
100724029	43	72.705:73.729	BAND	0.0850 ± 0.0138	−0.590 ± 0.074	−2.014 ± 0.090	312.50 ± 38.20	161.11 ± 20.04	462.41/477	17.929±1.6	4.1366E-06±2.9E-07
100724029	44	73.729:74.753	BAND	0.0870 ± 0.0104	−0.603 ± 0.052	−2.183 ± 0.110	381.50 ± 36.40	219.03 ± 22.98	565.76/477	20.378±1.4	5.0358E-06±2.8E-07
100724029	45	74.753:75.777	SBPL	0.0840 ± 0.0060	−0.714 ± 0.041	−2.081 ± 0.066	461.03 ± 154.41	182.20 ± 17.20	458.38/477	27.448±1.6	6.7421E-06±3.2E-07
100724029	46	75.777:76.801	BAND	0.1059 ± 0.0148	−0.639 ± 0.058	−2.246 ± 0.124	312.80 ± 30.50	187.95 ± 21.02	482.15/477	22.910±1.8	4.9358E-06±3.1E-07
100724029	47	76.801:77.825	COMP	0.0661 ± 0.0082	−0.826 ± 0.044	-	414.30 ± 37.70	-	512.14/478	18.243±1.6	3.8973E-06±2.7E-07
100724029	48	77.825:79.873	BAND	0.0486 ± 0.0081	−0.709 ± 0.067	−2.057 ± 0.120	269.20 ± 31.50	143.69 ± 18.93	467.39/477	10.398±1.1	2.0572E-06±1.8E-07
100724029	49	79.873:83.969	BAND	0.0278 ± 0.0063	−0.822 ± 0.100	−1.862 ± 0.103	213.50 ± 39.50	97.58 ± 18.02	496.53/477	6.0252±0.86	1.0697E-06±1.3E-07
100724029	50	83.969:92.161	COMP	0.0111 ± 0.0024	−0.865 ± 0.063	-	342.80 ± 44.00	-	539.78/478	2.9317±0.47	5.4516E-07±7.6E-08
100724029	51	92.161:105.474	SBPL	0.0079 ± 0.0013	−0.930 ± 0.089	−1.900 ± 0.113	342.43 ± 124.18	99.92 ± 22.50	490.55/477	2.9344±0.43	5.2493E-07±6.6E-08
100724029	52	105.474:114.690	COMP	0.0093 ± 0.0021	−1.107 ± 0.057	-	373.40 ± 67.90	-	523.51/478	3.1263±0.54	5.1192E-07±7.6E-08
100724029	53	114.690:120.834	PL	0.0017 ± 0.0006	−1.497 ± 0.024	-	-	-	597.7/479	0.98552±0.37	1.5879E-07±5.9E-08
100724029	54	120.834:125.954	COMP	0.0236 ± 0.0081	−0.953 ± 0.072	-	171.60 ± 16.90	-	522.49/478	5.1559±1.4	5.8542E-07±1.5E-07
100724029	55	125.954:129.026	COMP	0.0272 ± 0.0086	−1.033 ± 0.062	-	181.20 ± 17.80	-	497.19/478	6.7096±1.7	7.6437E-07±1.9E-07
100724029	56	129.026:132.098	PL	0.0031 ± 0.0009	−1.493 ± 0.021	-	-	-	569.88/479	1.7571±0.53	2.8480E-07±8.4E-08
100724029	57	132.098:137.218	PL	0.0031 ± 0.0010	−1.615 ± 0.030	-	-	-	510.96/479	1.9579±0.63	2.6070E-07±8.0E-08
100724029	58	137.218:203.779	PL	0.0010 ± 0.0002	−1.541 ± 0.028	-	-	-	627.77/479	0.58728±0.14	8.8066E-08±2.0E-08
100724029	59	203.779:231.428	none	-	-	-	-	-	-	-	-
100728095	1	-4.096:19.456	COMP	0.0077 ± 0.0015	−0.556 ± 0.092	-	387.20 ± 47.30	-	392.87/359	1.7386±0.22	4.2381E-07±4.2E-08
100728095	2	19.456:46.081	COMP	0.0109 ± 0.0039	−0.396 ± 0.122	-	207.70 ± 19.90	-	466.01/359	1.4514±0.36	2.3390E-07±5.3E-08
100728095	3	46.081:54.273	COMP	0.0166 ± 0.0028	−0.514 ± 0.077	-	371.30 ± 35.80	-	365.91/359	3.5939±0.38	8.7075E-07±7.5E-08
100728095	4	54.273:58.369	COMP	0.0317 ± 0.0051	−0.501 ± 0.074	-	344.00 ± 29.90	-	361.98/359	6.5000±0.65	1.4994E-06±1.2E-07
100728095	5	58.369:63.489	COMP	0.0176 ± 0.0032	−0.560 ± 0.081	-	384.70 ± 42.80	-	340.52/359	4.0030±0.48	9.6908E-07±9.6E-08
100728095	6	63.489:68.609	COMP	0.0210 ± 0.0032	−0.550 ± 0.075	-	416.70 ± 43.00	-	356.65/359	4.9538±0.49	1.2741E-06±9.8E-08
100728095	7	68.609:72.705	COMP	0.0255 ± 0.0034	−0.523 ± 0.070	-	451.90 ± 43.20	-	364.86/359	6.2348±0.54	1.7195E-06±1.1E-07
100728095	8	72.705:76.801	COMP	0.0233 ± 0.0028	−0.525 ± 0.065	-	505.20 ± 47.20	-	369.04/359	6.0486±0.48	1.7862E-06±1.1E-07
100728095	9	76.801:79.873	COMP	0.0380 ± 0.0046	−0.460 ± 0.062	-	407.00 ± 30.60	-	382.13/359	8.4714±0.66	2.2580E-06±1.4E-07
100728095	10	79.873:81.921	COMP	0.0408 ± 0.0050	−0.526 ± 0.061	-	451.90 ± 38.30	-	405.57/359	9.9638±0.81	2.7421E-06±1.7E-07
100728095	11	81.921:83.969	COMP	0.0459 ± 0.0053	−0.538 ± 0.058	-	443.30 ± 35.50	-	376.36/359	11.147±0.85	3.0089E-06±1.7E-07
100728095	12	83.969:86.017	COMP	0.0515 ± 0.0074	−0.390 ± 0.071	-	353.90 ± 26.40	-	337.97/359	10.112±0.90	2.5207E-06±1.7E-07
100728095	13	86.017:89.089	COMP	0.0381 ± 0.0050	−0.582 ± 0.058	-	391.70 ± 32.30	-	387.62/359	8.8332±0.75	2.1384E-06±1.4E-07
100728095	14	89.089:92.161	COMP	0.0403 ± 0.0070	−0.602 ± 0.071	-	312.70 ± 28.40	-	392.21/359	8.3321±0.92	1.7000E-06±1.5E-07
100728095	15	92.161:96.257	COMP	0.0405 ± 0.0082	−0.444 ± 0.080	-	254.80 ± 19.50	-	375.48/359	6.5287±0.84	1.2226E-06±1.3E-07
100728095	16	96.257:103.425	COMP	0.0380 ± 0.0114	−0.444 ± 0.097	-	184.80 ± 13.80	-	372.04/359	4.8398±0.98	6.9716E-07±1.3E-07
100728095	17	103.425:111.618	COMP	0.0204 ± 0.0045	−0.734 ± 0.075	-	266.70 ± 27.50	-	399.21/359	4.3198±0.64	7.3346E-07±9.2E-08
100728095	18	111.618:123.906	SBPL	0.0099 ± 0.0037	−0.848 ± 0.084	−3.567 ± 0.978	150.62 ± 53.94	161.50 ± 43.20	428.29/358	3.0687±1.1	3.9044E-07±1.2E-07
100728095	19	123.906:128.002	COMP	0.0407 ± 0.0101	−0.364 ± 0.090	-	222.90 ± 16.50	-	388.1/359	5.5476±0.91	9.5931E-07±1.4E-07
100728095	20	128.002:135.170	COMP	0.0360 ± 0.0085	−0.535 ± 0.083	-	216.60 ± 17.10	-	386.68/359	5.6247±0.85	8.9100E-07±1.1E-07
100728095	21	135.170:143.362	none	-	-	-	-	-	-	-	-
100728095	22	143.362:168.962	none	-	-	-	-	-	-	-	-
100728095	23	168.962:178.179	PL	0.0016 ± 0.0006	−1.543 ± 0.026	-	-	-	482.58/360	0.95701±0.38	1.4346E-07±5.5E-08
100728095	24	178.179:184.323	COMP	0.0290 ± 0.0090	−0.607 ± 0.093	-	200.00 ± 18.60	-	365.5/359	4.6204±0.98	6.6867E-07±1.3E-07
100728095	25	184.323:283.652	none	-	-	-	-	-	-	-	-
100826957	1	0.000:17.448	BAND	0.0457 ± 0.0032	−0.587 ± 0.034	−1.983 ± 0.037	307.10 ± 16.10	155.70 ± 8.25	786.28/356	9.5481±0.35	2.2017E-06±6.6E-08
100826957	2	17.448:18.143	BAND	0.1129 ± 0.0221	−0.481 ± 0.099	−1.929 ± 0.078	276.00 ± 37.20	135.58 ± 18.03	386.53/356	20.713±2.0	4.8688E-06±3.9E-07

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
100826957	3	18.143:18.677	SBPL	0.0835 ± 0.0094	−0.691 ± 0.070	−2.065 ± 0.096	430.66 ± 148.88	177.40 ± 26.50	442.96/356	27.019±2.4	6.6972E-06±4.8E-07
100826957	4	18.677:19.127	COMP	0.0847 ± 0.0093	−0.750 ± 0.048	-	665.00 ± 74.90	-	400.62/357	26.685±2.1	7.7003E-06±4.8E-07
100826957	5	19.127:19.558	BAND	0.1173 ± 0.0181	−0.628 ± 0.074	−2.063 ± 0.099	436.80 ± 64.40	231.39 ± 34.21	359.52/356	29.793±2.5	7.8530E-06±5.1E-07
100826957	6	19.558:19.975	SBPL	0.0848 ± 0.0092	−0.764 ± 0.056	−2.123 ± 0.107	577.95 ± 202.87	269.40 ± 45.70	345.56/356	30.516±2.5	8.5720E-06±5.4E-07
100826957	7	19.975:20.469	BAND	0.1270 ± 0.0203	−0.655 ± 0.074	−2.074 ± 0.097	408.60 ± 60.30	218.31 ± 32.54	349.41/356	31.716±2.7	7.9365E-06±5.1E-07
100826957	8	20.469:20.901	SBPL	0.1016 ± 0.0111	−0.712 ± 0.062	−2.207 ± 0.113	420.35 ± 106.09	220.40 ± 33.10	378.45/356	33.903±2.8	8.7391E-06±5.6E-07
100826957	9	20.901:21.312	COMP	0.0977 ± 0.0104	−0.739 ± 0.049	-	654.90 ± 70.40	-	391.26/357	30.487±2.4	8.8203E-06±5.3E-07
100826957	10	21.312:21.758	BAND	0.1569 ± 0.0266	−0.592 ± 0.082	−2.101 ± 0.098	363.70 ± 50.40	198.61 ± 27.55	417.12/356	35.732±3.1	8.7577E-06±5.7E-07
100826957	11	21.758:22.218	COMP	0.0823 ± 0.0085	−0.785 ± 0.046	-	714.60 ± 82.40	-	332.85/357	26.836±2.1	7.7484E-06±4.8E-07
100826957	12	22.218:22.605	BAND	0.1493 ± 0.0238	−0.597 ± 0.079	−1.959 ± 0.073	431.80 ± 67.00	213.55 ± 32.82	354.01/356	37.307±3.0	1.0111E-05±6.0E-07
100826957	13	22.605:23.088	BAND	0.1308 ± 0.0209	−0.622 ± 0.077	−1.990 ± 0.076	412.20 ± 62.10	207.26 ± 31.01	361.28/356	32.327±2.6	8.3947E-06±5.2E-07
100826957	14	23.088:23.685	COMP	0.0547 ± 0.0056	−0.939 ± 0.040	-	1070.00 ± 171.00	-	459.64/357	20.598±1.7	5.8416E-06±3.9E-07
100826957	15	23.685:24.359	BAND	0.0833 ± 0.0149	−0.680 ± 0.083	−1.910 ± 0.084	369.40 ± 62.00	175.04 ± 29.07	372.66/356	20.338±2.0	4.8928E-06±3.8E-07
100826957	16	24.359:25.236	BAND	0.0843 ± 0.0145	−0.639 ± 0.081	−1.928 ± 0.077	351.70 ± 53.40	170.23 ± 25.26	451.19/356	19.584±1.7	4.7196E-06±3.3E-07
100826957	17	25.236:25.890	SBPL	0.0592 ± 0.0067	−0.848 ± 0.061	−1.919 ± 0.082	794.83 ± 294.45	191.30 ± 34.70	358.42/356	21.078±1.9	5.1441E-06±3.9E-07
100826957	18	25.890:26.700	COMP	0.0542 ± 0.0071	−0.877 ± 0.048	-	578.20 ± 76.00	-	451.97/357	17.246±1.7	4.1945E-06±3.3E-07
100826957	19	26.700:28.004	BAND	0.0838 ± 0.0148	−0.697 ± 0.081	−1.994 ± 0.090	276.70 ± 37.70	141.79 ± 19.70	411.48/356	18.026±1.7	3.6939E-06±2.8E-07
100826957	20	28.004:29.063	BAND	0.1039 ± 0.0197	−0.589 ± 0.088	−2.037 ± 0.093	254.40 ± 31.80	134.29 ± 17.09	420.26/356	19.543±1.9	4.0453E-06±3.2E-07
100826957	21	29.063:30.680	COMP	0.0433 ± 0.0058	−0.968 ± 0.046	-	478.30 ± 60.60	-	456.64/357	13.801±1.3	2.8463E-06±2.3E-07
100826957	22	30.680:122.880	SBPL	0.0116 ± 0.0005	−0.775 ± 0.051	−1.781 ± 0.017	-	44.96 ± 2.90	1320.6/356	5.0894±0.21	7.9565E-07±2.9E-08
100829876	1	-1.024:0.472	none	-	-	-	-	-	-	-	-
100829876	2	0.472:0.688	COMP	0.4196 ± 0.1230	−0.409 ± 0.103	-	231.20 ± 22.50	-	253.05/240	61.202±11.0	1.0727E-05±1.6E-06
100829876	3	0.688:0.846	COMP	0.3570 ± 0.0659	−0.440 ± 0.081	-	365.30 ± 34.60	-	246.86/240	73.576±8.8	1.8315E-05±1.6E-06
100829876	4	0.846:1.030	COMP	0.3845 ± 0.0880	−0.517 ± 0.088	-	280.90 ± 27.60	-	248.7/240	70.080±10.0	1.3737E-05±1.6E-06
100829876	5	1.030:1.588	SBPL	0.0760 ± 0.0267	−0.294 ± 0.270	−2.321 ± 0.216	105.12 ± 40.18	57.43 ± 13.60	273.39/239	26.823±8.7	3.5839E-06±1.0E-06
100829876	6	1.588:1.755	COMP	0.5242 ± 0.1310	−0.083 ± 0.110	-	252.10 ± 19.60	-	238.72/240	64.398±9.6	1.3639E-05±1.7E-06
100829876	7	1.755:6.714	none	-	-	-	-	-	-	-	-
100829876	8	6.714:12.838	none	-	-	-	-	-	-	-	-
100829876	9	12.838:16.384	none	-	-	-	-	-	-	-	-
100910818	1	-1.024:5.293	COMP	0.0119 ± 0.0031	−1.229 ± 0.056	-	283.20 ± 45.90	-	549.87/478	4.2365±0.88	5.5759E-07±1.1E-07
100910818	2	5.293:8.805	COMP	0.0430 ± 0.0114	−0.834 ± 0.071	-	182.90 ± 14.70	-	540.68/478	8.3555±1.6	1.0380E-06±1.8E-07
100910818	3	8.805:9.239	COMP	0.4331 ± 0.0953	−0.448 ± 0.067	-	161.20 ± 7.27	-	461.68/478	49.852±7.5	6.4199E-06±8.8E-07
100910818	4	9.239:11.728	COMP	0.0640 ± 0.0236	−0.981 ± 0.071	-	123.50 ± 8.21	-	483.76/478	12.494±3.8	1.1402E-06±3.3E-07
100910818	5	11.728:13.343	COMP	0.1046 ± 0.0289	−0.844 ± 0.066	-	145.90 ± 9.11	-	462.38/478	18.357±3.8	1.9435E-06±3.8E-07
100910818	6	13.343:21.504	none	-	-	-	-	-	-	-	-
100918863	1	-1.024:26.551	COMP	0.0200 ± 0.0021	−0.424 ± 0.056	-	326.70 ± 17.80	-	779.76/358	3.7774±0.24	8.7057E-07±4.2E-08
100918863	2	26.551:30.596	COMP	0.0351 ± 0.0054	−0.476 ± 0.077	-	334.70 ± 27.80	-	377.98/358	6.9675±0.67	1.5945E-06±1.2E-07
100918863	3	30.596:35.293	COMP	0.0205 ± 0.0033	−0.661 ± 0.072	-	402.70 ± 44.10	-	443.68/358	5.0507±0.54	1.1862E-06±1.0E-07
100918863	4	35.293:41.547	COMP	0.0217 ± 0.0034	−0.629 ± 0.072	-	368.40 ± 36.50	-	465.11/358	4.9947±0.51	1.1277E-06±9.2E-08
100918863	5	41.547:47.578	COMP	0.0228 ± 0.0035	−0.663 ± 0.070	-	376.90 ± 37.90	-	425.51/358	5.4432±0.54	1.2222E-06±9.5E-08
100918863	6	47.578:53.579	COMP	0.0199 ± 0.0030	−0.727 ± 0.067	-	427.60 ± 48.80	-	357.45/358	5.2173±0.52	1.2176E-06±9.4E-08
100918863	7	53.579:58.077	COMP	0.0172 ± 0.0020	−0.764 ± 0.060	-	699.80 ± 94.60	-	393.0/358	5.5385±0.47	1.6165E-06±1.0E-07
100918863	8	58.077:59.618	COMP	0.0272 ± 0.0025	−0.886 ± 0.044	-	1222.00 ± 180.00	-	335.69/358	10.365±0.82	3.2205E-06±2.0E-07
100918863	9	59.618:61.043	COMP	0.0354 ± 0.0038	−0.796 ± 0.055	-	764.70 ± 102.00	-	396.1/358	11.832±0.96	3.4775E-06±2.1E-07
100918863	10	61.043:62.294	COMP	0.0418 ± 0.0048	−0.740 ± 0.059	-	628.30 ± 75.20	-	339.58/358	12.856±1.1	3.6506E-06±2.3E-07
100918863	11	62.294:63.378	COMP	0.0314 ± 0.0032	−0.869 ± 0.048	-	1132.00 ± 176.00	-	395.47/358	11.733±0.99	3.6415E-06±2.4E-07
100918863	12	63.378:64.752	COMP	0.0368 ± 0.0042	−0.766 ± 0.057	-	700.20 ± 89.50	-	344.51/358	11.840±0.99	3.4491E-06±2.2E-07
100918863	13	64.752:66.287	COMP	0.0322 ± 0.0039	−0.765 ± 0.059	-	655.90 ± 86.40	-	352.15/358	10.153±0.90	2.8796E-06±2.0E-07
100918863	14	66.287:67.868	COMP	0.0295 ± 0.0030	−0.922 ± 0.049	-	977.50 ± 157.00	-	435.83/358	10.871±0.91	3.0684E-06±2.0E-07
100918863	15	67.868:69.882	COMP	0.0306 ± 0.0040	−0.816 ± 0.061	-	573.60 ± 77.70	-	416.0/358	9.4284±0.89	2.4081E-06±1.7E-07
100918863	16	69.882:72.241	COMP	0.0268 ± 0.0034	−0.889 ± 0.057	-	643.20 ± 96.40	-	290.13/358	8.8443±0.82	2.2308E-06±1.6E-07
100918863	17	72.241:79.309	COMP	0.0248 ± 0.0046	−0.728 ± 0.073	-	298.50 ± 30.50	-	440.8/358	5.5269±0.66	1.0192E-06±9.7E-08
100918863	18	79.309:88.104	COMP	0.0134 ± 0.0020	−0.935 ± 0.060	-	506.10 ± 78.30	-	435.89/358	4.2529±0.46	9.2662E-07±7.8E-08

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
100918863	19	88.104:91.588	COMP	0.0218 ± 0.0025	−0.816 ± 0.058	-	684.60 ± 93.90	-	409.16/358	7.0823±0.61	1.9567E-06±1.2E-07
100918863	20	91.588:93.962	COMP	0.0267 ± 0.0031	−0.851 ± 0.056	-	714.80 ± 102.00	-	329.34/358	8.9021±0.76	2.4261E-06±1.6E-07
100918863	21	93.962:96.147	COMP	0.0243 ± 0.0027	−0.780 ± 0.057	-	822.20 ± 115.00	-	363.03/358	8.2575±0.68	2.5306E-06±1.6E-07
100918863	22	96.147:98.247	COMP	0.0258 ± 0.0030	−0.898 ± 0.054	-	791.60 ± 127.00	-	381.29/358	9.0237±0.81	2.4421E-06±1.7E-07
100918863	23	98.247:100.619	COMP	0.0303 ± 0.0043	−0.762 ± 0.067	-	494.50 ± 62.60	-	425.64/358	8.6110±0.85	2.1304E-06±1.6E-07
100918863	24	100.619:103.859	COMP	0.0210 ± 0.0030	−0.860 ± 0.062	-	580.70 ± 88.10	-	356.29/358	6.6399±0.67	1.6439E-06±1.3E-07
100918863	25	103.859:108.385	COMP	0.0223 ± 0.0036	−0.877 ± 0.067	-	431.20 ± 60.70	-	392.7/358	6.4663±0.72	1.3616E-06±1.1E-07
100918863	26	108.385:119.808	COMP	0.0149 ± 0.0044	−0.841 ± 0.097	-	239.80 ± 33.30	-	397.32/358	3.3108±0.67	4.9462E-07±8.3E-08
101014175	1	-3.584:1.536	COMP	0.0414 ± 0.0021	−0.704 ± 0.028	-	347.00 ± 15.00	-	521.36/256	9.7443±0.30	2.0208E-06±5.8E-08
101014175	2	1.536:2.560	COMP	0.1459 ± 0.0070	−0.782 ± 0.025	-	348.00 ± 14.50	-	455.54/256	36.347±1.1	7.2023E-06±1.9E-07
101014175	3	2.560:3.584	BAND	0.1676 ± 0.0231	−0.748 ± 0.062	−2.351 ± 0.113	130.70 ± 8.71	87.42 ± 7.41	334.86/255	25.109±1.5	3.1003E-06±1.7E-07
101014175	4	3.584:4.608	COMP	0.0745 ± 0.0075	−1.053 ± 0.043	-	220.50 ± 16.80	-	395.53/256	20.191±1.3	2.5733E-06±1.4E-07
101014175	5	4.608:5.632	COMP	0.0690 ± 0.0105	−1.097 ± 0.055	-	123.10 ± 7.64	-	282.75/256	15.975±1.6	1.4105E-06±1.3E-07
101014175	6	5.632:6.656	COMP	0.0730 ± 0.0080	−1.157 ± 0.042	-	176.70 ± 12.70	-	314.76/256	20.887±1.5	2.2297E-06±1.4E-07
101014175	7	6.656:7.680	COMP	0.1024 ± 0.0074	−0.849 ± 0.033	-	268.30 ± 14.40	-	393.08/256	24.157±1.1	3.8784E-06±1.5E-07
101014175	8	7.680:8.704	COMP	0.1350 ± 0.0180	−0.725 ± 0.051	-	119.80 ± 4.53	-	351.83/256	17.961±1.5	1.7137E-06±1.3E-07
101014175	9	8.704:9.728	COMP	0.1164 ± 0.0172	−1.067 ± 0.051	-	101.00 ± 4.70	-	352.86/256	23.604±2.1	1.8701E-06±1.5E-07
101014175	10	9.728:10.752	COMP	0.0495 ± 0.0095	−1.148 ± 0.063	-	109.80 ± 7.68	-	281.49/256	11.817±1.6	9.6544E-07±1.2E-07
101014175	11	10.752:13.824	COMP	0.0132 ± 0.0047	−1.538 ± 0.093	-	58.71 ± 5.87	-	281.84/256	5.0733±1.3	2.9852E-07±7.2E-08
101014175	12	13.824:19.968	SBPL	0.0024 ± 0.0009	−1.540 ± 0.143	−2.832 ± 0.313	36.67 ± 12.57	45.24 ± 14.50	272.61/255	2.8666±1.2	1.5757E-07±6.1E-08
101014175	13	19.968:20.992	COMP	0.0243 ± 0.0041	−1.604 ± 0.052	-	213.80 ± 57.30	-	341.78/256	13.270±1.6	1.2424E-06±1.3E-07
101014175	14	20.992:23.040	COMP	0.0181 ± 0.0027	−1.543 ± 0.049	-	210.20 ± 44.40	-	343.65/256	9.0620±0.99	8.7241E-07±8.6E-08
101014175	15	23.040:24.064	COMP	0.0285 ± 0.0037	−1.306 ± 0.050	-	372.00 ± 80.20	-	305.05/256	11.587±1.1	1.6139E-06±1.3E-07
101014175	16	24.064:26.112	COMP	0.0390 ± 0.0042	−1.270 ± 0.040	-	203.90 ± 19.70	-	342.97/256	13.447±0.94	1.4726E-06±8.9E-08
101014175	17	26.112:27.136	COMP	0.0766 ± 0.0057	−1.004 ± 0.034	-	338.50 ± 26.40	-	388.81/256	22.695±1.1	3.8174E-06±1.6E-07
101014175	18	27.136:28.160	COMP	0.0778 ± 0.0053	−1.007 ± 0.031	-	369.30 ± 27.90	-	397.56/256	23.736±1.1	4.1764E-06±1.6E-07
101014175	19	28.160:31.232	SBPL	0.0050 ± 0.0013	−1.054 ± 0.349	−2.459 ± 0.136	31.44 ± 10.24	25.10 ± 7.54	287.76/255	5.3945±1.4	3.3477E-07±8.3E-08
101014175	20	31.232:33.280	PL	0.0040 ± 0.0012	−2.034 ± 0.035	-	-	-	283.54/257	4.0806±1.2	2.9265E-07±8.7E-08
101014175	21	33.280:34.305	COMP	0.0392 ± 0.0060	−1.317 ± 0.053	-	174.70 ± 20.90	-	320.86/256	13.871±1.4	1.3773E-06±1.3E-07
101014175	22	34.305:35.329	COMP	0.0835 ± 0.0121	−1.097 ± 0.051	-	118.20 ± 6.78	-	374.72/256	19.000±1.7	1.6388E-06±1.3E-07
101014175	23	35.329:36.353	COMP	0.0645 ± 0.0136	−1.213 ± 0.063	-	80.90 ± 4.35	-	352.27/256	15.154±2.2	1.0386E-06±1.4E-07
101014175	24	36.353:49.665	PL	0.0014 ± 0.0004	−2.069 ± 0.052	-	-	-	314.5/257	1.5220±0.49	1.0435E-07±3.2E-08
101014175	25	95.745:101.890	COMP	0.0361 ± 0.0098	−1.047 ± 0.059	-	154.00 ± 13.80	-	402.65/356	8.5161±1.7	8.7339E-07±1.5E-07
101014175	26	101.890:102.914	COMP	0.1351 ± 0.0463	−1.158 ± 0.055	-	96.09 ± 5.17	-	389.73/356	31.037±9.0	2.3502E-06±6.6E-07
101014175	27	102.914:103.938	SBPL	0.0181 ± 0.0069	−1.026 ± 0.164	−2.291 ± 0.102	55.36 ± 12.51	36.17 ± 7.38	370.44/355	12.897±4.9	1.0656E-06±3.9E-07
101014175	28	103.938:105.986	BAND	0.0466 ± 0.0180	−1.176 ± 0.087	−2.429 ± 0.223	84.72 ± 9.12	67.95 ± 12.59	385.8/355	10.697±3.9	9.0399E-07±3.1E-07
101014175	29	105.986:111.106	COMP	0.0402 ± 0.0136	−1.227 ± 0.060	-	114.30 ± 9.99	-	377.53/356	11.032±2.9	9.0533E-07±2.2E-07
101014175	30	111.106:163.331	BAND	0.0091 ± 0.0017	−1.172 ± 0.057	−2.064 ± 0.131	159.70 ± 22.20	88.82 ± 15.61	544.76/355	2.6591±0.40	3.2261E-07±4.1E-08
101014175	31	163.331:203.267	COMP	0.0063 ± 0.0007	−1.325 ± 0.025	-	697.90 ± 142.00	-	528.7/356	2.8274±0.25	4.6659E-07±3.5E-08
101014175	32	203.267:209.411	BAND	0.0601 ± 0.0055	−0.856 ± 0.035	−2.025 ± 0.052	297.50 ± 23.90	155.70 ± 12.89	433.62/355	15.204±0.78	2.8919E-06±1.2E-07
101014175	33	209.411:210.435	BAND	0.1668 ± 0.0102	−0.937 ± 0.023	−2.209 ± 0.069	585.20 ± 46.20	353.19 ± 30.24	390.76/355	55.084±2.2	1.2848E-05±3.9E-07
101014175	34	210.435:211.459	BAND	0.1046 ± 0.0153	−1.026 ± 0.052	−2.052 ± 0.085	297.40 ± 43.90	159.83 ± 24.19	413.36/355	30.797±2.6	5.1698E-06±3.4E-07
101014175	35	211.459:212.483	COMP	0.0728 ± 0.0085	−1.119 ± 0.035	-	455.10 ± 53.70	-	411.55/356	25.762±2.2	4.5698E-06±3.1E-07
101014175	36	212.483:214.531	COMP	0.0538 ± 0.0049	−1.161 ± 0.027	-	529.30 ± 57.80	-	404.88/356	20.271±1.4	3.6704E-06±2.0E-07
101014175	37	214.531:217.603	COMP	0.0431 ± 0.0059	−1.168 ± 0.036	-	308.60 ± 32.90	-	413.36/356	14.607±1.5	2.0889E-06±1.7E-07
101014175	38	217.603:272.900	SBPL	0.0043 ± 0.0007	−1.369 ± 0.039	−2.082 ± 0.167	206.64 ± 83.13	125.40 ± 34.80	656.5/355	2.1262±0.34	2.6823E-07±3.7E-08
101014175	39	414.215:430.599	COMP	0.0137 ± 0.0035	−1.071 ± 0.061	-	225.30 ± 31.40	-	433.65/356	3.8133±0.69	4.8750E-07±7.1E-08
101014175	40	430.599:435.719	COMP	0.0252 ± 0.0083	−1.173 ± 0.063	-	158.10 ± 18.60	-	362.9/356	7.1142±1.8	7.0900E-07±1.6E-07
101014175	41	435.719:438.791	COMP	0.0272 ± 0.0085	−1.208 ± 0.060	-	179.40 ± 23.20	-	367.66/356	8.3698±2.1	8.8196E-07±2.0E-07
101014175	42	438.791:440.839	COMP	0.0667 ± 0.0169	−1.007 ± 0.059	-	171.20 ± 15.30	-	394.01/356	15.558±2.9	1.7296E-06±2.8E-07
101014175	43	440.839:442.887	COMP	0.0817 ± 0.0226	−1.222 ± 0.059	-	136.30 ± 13.30	-	367.91/356	23.563±4.7	2.1286E-06±3.7E-07
101014175	44	442.887:444.935	COMP	0.0820 ± 0.0251	−1.160 ± 0.063	-	128.30 ± 11.60	-	424.26/356	21.139±4.7	1.8801E-06±3.8E-07
101014175	45	444.935:446.983	PL	0.0055 ± 0.0018	−1.701 ± 0.024	-	-	-	440.32/357	3.7601±1.3	4.3815E-07±1.4E-07

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
101014175	46	446.983:450.055	COMP	0.0398 ± 0.0132	−1.469 ± 0.062	-	124.90 ± 18.10	-	362.7/356	16.318±4.1	1.3215E-06±2.9E-07
101014175	47	450.055:454.151	PL	0.0041 ± 0.0015	−1.789 ± 0.027	-	-	-	381.06/357	3.0563±1.2	3.1050E-07±1.2E-07
101014175	48	454.151:461.319	none	-	-	-	-	-	-	-	-
101014175	49	461.319:474.631	PL	0.0035 ± 0.0010	−1.895 ± 0.034	-	-	-	411.48/357	3.0149±0.92	2.6162E-07±7.6E-08
101014175	50	474.631:519.688	none	-	-	-	-	-	-	-	-
101023951	1	-2.048:19.456	PL	0.0025 ± 0.0006	−1.732 ± 0.029	-	-	-	631.6/362	1.8079±0.46	1.9953E-07±4.8E-08
101023951	2	45.057:62.465	COMP	0.0219 ± 0.0051	−1.217 ± 0.060	-	156.60 ± 13.20	-	595.06/361	6.5858±1.1	6.4060E-07±9.9E-08
101023951	3	62.465:63.489	COMP	0.1145 ± 0.0213	−0.860 ± 0.066	-	225.60 ± 17.60	-	383.59/361	25.335±3.2	3.5921E-06±3.7E-07
101023951	4	63.489:64.513	COMP	0.1303 ± 0.0214	−0.830 ± 0.059	-	238.80 ± 17.00	-	405.16/361	28.676±3.1	4.2886E-06±3.8E-07
101023951	5	64.513:65.537	COMP	0.1691 ± 0.0202	−0.818 ± 0.046	-	261.40 ± 14.80	-	385.8/361	38.320±3.1	6.1354E-06±3.9E-07
101023951	6	65.537:66.561	COMP	0.1286 ± 0.0150	−0.980 ± 0.043	-	301.60 ± 21.60	-	401.52/361	35.981±2.9	5.7460E-06±3.7E-07
101023951	7	66.561:67.585	COMP	0.1083 ± 0.0195	−1.060 ± 0.058	-	224.20 ± 19.60	-	369.72/361	29.840±3.7	3.8177E-06±4.0E-07
101023951	8	67.585:69.633	BAND	0.1562 ± 0.0343	−0.693 ± 0.102	−2.463 ± 0.179	138.10 ± 12.10	96.89 ± 11.58	443.26/360	22.411±3.3	2.8256E-06±3.4E-07
101023951	9	69.633:70.657	COMP	0.0780 ± 0.0162	−1.007 ± 0.069	-	242.00 ± 25.20	-	453.49/361	20.802±3.0	2.8646E-06±3.5E-07
101023951	10	70.657:72.705	COMP	0.0729 ± 0.0154	−1.078 ± 0.060	-	181.60 ± 14.30	-	423.18/361	19.101±2.9	2.1353E-06±2.9E-07
101023951	11	72.705:75.777	COMP	0.0403 ± 0.0142	−1.172 ± 0.082	-	141.30 ± 13.80	-	501.36/361	10.983±3.0	1.0247E-06±2.6E-07
101023951	12	75.777:81.921	PL	0.0036 ± 0.0013	−1.796 ± 0.028	-	-	-	476.4/362	2.7556±1.0	2.7561E-07±9.9E-08
101023951	13	81.921:101.378	none	-	-	-	-	-	-	-	-
101123952	1	30.720:44.019	BAND	0.0092 ± 0.0018	−0.603 ± 0.105	−1.858 ± 0.091	529.00 ± 122.00	241.19 ± 54.93	539.33/356	2.5308±0.26	7.5670E-07±6.0E-08
101123952	2	44.019:44.560	BAND	0.0543 ± 0.0053	−0.619 ± 0.056	−1.916 ± 0.082	1137.00 ± 192.00	537.14 ± 91.92	314.52/356	19.988±1.4	7.8587E-06±4.2E-07
101123952	3	44.560:45.006	BAND	0.1117 ± 0.0187	−0.536 ± 0.086	−1.780 ± 0.053	459.20 ± 80.70	199.20 ± 34.29	345.92/356	28.305±2.3	8.4267E-06±5.2E-07
101123952	4	45.006:45.389	SBPL	0.0893 ± 0.0102	−0.710 ± 0.064	−1.918 ± 0.074	1034.24 ± 370.45	214.50 ± 36.30	422.72/356	31.139±2.7	8.8501E-06±5.9E-07
101123952	5	45.389:45.754	SBPL	0.0925 ± 0.0107	−0.671 ± 0.070	−1.925 ± 0.078	805.70 ± 275.82	184.50 ± 29.80	373.38/356	30.802±2.8	8.3873E-06±6.0E-07
101123952	6	45.754:46.091	BAND	0.1216 ± 0.0212	−0.655 ± 0.079	−1.912 ± 0.083	447.00 ± 80.70	211.51 ± 37.91	351.56/356	31.825±3.0	8.4630E-06±6.2E-07
101123952	7	46.091:46.374	BAND	0.1156 ± 0.0186	−0.649 ± 0.073	−2.060 ± 0.125	480.30 ± 78.90	253.41 ± 42.48	394.56/356	30.983±3.0	8.4173E-06±6.4E-07
101123952	8	46.374:46.668	BAND	0.0971 ± 0.0135	−0.749 ± 0.060	−2.139 ± 0.153	671.30 ± 119.00	372.17 ± 70.96	364.95/356	30.726±2.8	8.9285E-06±6.4E-07
101123952	9	46.668:46.967	BAND	0.1732 ± 0.0354	−0.535 ± 0.094	−2.006 ± 0.100	318.70 ± 48.20	162.97 ± 24.45	323.23/356	35.698±3.7	8.5933E-06±7.1E-07
101123952	10	46.967:47.477	COMP	0.0670 ± 0.0100	−0.960 ± 0.052	-	581.70 ± 95.80	-	386.33/357	22.419±2.5	5.0729E-06±4.5E-07
101123952	11	47.477:48.123	COMP	0.0616 ± 0.0084	−0.901 ± 0.053	-	611.20 ± 95.10	-	348.38/357	20.208±2.0	4.9254E-06±3.9E-07
101123952	12	48.123:48.727	COMP	0.0620 ± 0.0077	−0.884 ± 0.049	-	700.30 ± 105.00	-	375.43/357	20.909±2.0	5.4713E-06±4.1E-07
101123952	13	48.727:49.266	COMP	0.0927 ± 0.0156	−0.704 ± 0.063	-	375.00 ± 41.00	-	389.2/357	22.647±2.6	4.9359E-06±4.5E-07
101123952	14	49.266:49.898	COMP	0.0923 ± 0.0177	−0.764 ± 0.067	-	322.90 ± 36.50	-	371.81/357	21.964±2.8	4.1821E-06±4.3E-07
101123952	15	49.898:50.172	COMP	0.1525 ± 0.0167	−0.438 ± 0.057	-	506.50 ± 39.20	-	340.89/357	38.660±2.9	1.2055E-05±7.2E-07
101123952	16	50.172:50.441	COMP	0.1459 ± 0.0150	−0.670 ± 0.049	-	636.50 ± 61.10	-	371.82/357	44.134±3.3	1.3306E-05±7.6E-07
101123952	17	50.441:50.707	COMP	0.1139 ± 0.0155	−0.749 ± 0.053	-	555.00 ± 67.10	-	343.51/357	33.676±3.3	8.9207E-06±7.0E-07
101123952	18	50.707:51.270	BAND	0.1114 ± 0.0251	−0.736 ± 0.096	−1.954 ± 0.102	266.70 ± 47.50	132.45 ± 23.70	389.02/356	24.434±3.0	4.8533E-06±4.8E-07
101123952	19	51.270:51.748	COMP	0.0949 ± 0.0142	−0.900 ± 0.054	-	458.70 ± 61.20	-	392.27/357	28.581±3.0	6.0950E-06±5.0E-07
101123952	20	51.748:51.986	COMP	0.1585 ± 0.0176	−0.636 ± 0.051	-	558.50 ± 51.30	-	342.14/357	44.915±3.6	1.3007E-05±8.1E-07
101123952	21	51.986:52.260	COMP	0.1336 ± 0.0181	−0.750 ± 0.054	-	489.90 ± 54.10	-	384.67/357	37.645±3.6	9.3345E-06±7.1E-07
101123952	22	52.260:52.531	COMP	0.1834 ± 0.0211	−0.699 ± 0.050	-	507.80 ± 47.70	-	390.23/357	51.152±4.1	1.3431E-05±8.0E-07
101123952	23	52.531:52.826	COMP	0.1196 ± 0.0155	−0.794 ± 0.053	-	545.00 ± 65.10	-	381.81/357	35.835±3.4	9.0798E-06±6.7E-07
101123952	24	52.826:53.146	COMP	0.1456 ± 0.0171	−0.674 ± 0.052	-	501.30 ± 47.70	-	355.23/357	39.939±3.3	1.0602E-05±6.7E-07
101123952	25	53.146:53.484	COMP	0.1054 ± 0.0133	−0.714 ± 0.053	-	550.00 ± 61.30	-	419.4/357	30.559±2.8	8.2845E-06±5.9E-07
101123952	26	53.484:53.824	COMP	0.1091 ± 0.0150	−0.717 ± 0.054	-	512.80 ± 58.00	-	365.1/357	30.798±3.0	8.0240E-06±6.1E-07
101123952	27	53.824:54.813	SBPL	0.0273 ± 0.0053	−0.770 ± 0.170	−1.721 ± 0.083	-	61.28 ± 17.30	383.21/356	10.574±1.9	1.9610E-06±3.0E-07
101123952	28	54.813:55.650	COMP	0.0592 ± 0.0078	−0.739 ± 0.057	-	536.00 ± 65.10	-	390.06/357	17.179±1.6	4.5079E-06±3.3E-07
101123952	29	55.650:56.160	COMP	0.0750 ± 0.0110	−0.800 ± 0.056	-	523.30 ± 69.60	-	377.91/357	22.223±2.3	5.4881E-06±4.5E-07
101123952	30	56.160:56.512	COMP	0.1067 ± 0.0137	−0.732 ± 0.054	-	527.10 ± 59.10	-	361.24/357	30.682±2.8	8.0188E-06±5.8E-07
101123952	31	56.512:56.913	COMP	0.1055 ± 0.0176	−0.877 ± 0.057	-	397.40 ± 50.20	-	404.5/357	29.769±3.5	5.9797E-06±5.6E-07
101123952	32	56.913:59.919	COMP	0.0440 ± 0.0132	−0.963 ± 0.085	-	218.30 ± 32.10	-	488.01/357	10.745±2.1	1.4183E-06±2.2E-07
101123952	33	59.919:73.728	COMP	0.0096 ± 0.0034	−0.993 ± 0.115	-	325.70 ± 89.90	-	596.86/357	2.7765±0.64	4.5935E-07±7.7E-08
101123952	34	81.920:91.338	COMP	0.0133 ± 0.0026	−1.088 ± 0.060	-	455.80 ± 98.00	-	478.7/357	4.6122±0.64	8.3841E-07±9.0E-08
101123952	35	91.338:93.217	COMP	0.0270 ± 0.0069	−1.048 ± 0.071	-	342.70 ± 66.90	-	417.94/357	8.3767±1.6	1.3709E-06±2.2E-07

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
101123952	36	93.217:94.240	COMP	0.0659 ± 0.0198	−0.959 ± 0.080	-	221.50 ± 30.20	-	389.72/357	16.117±3.4	2.1521E-06±3.9E-07
101123952	37	94.240:112.640	COMP	0.0100 ± 0.0038	−1.163 ± 0.094	-	238.80 ± 58.20	-	544.85/357	3.1729±0.83	3.9781E-07±8.2E-08
101123952	38	139.264:143.859	COMP	0.0117 ± 0.0034	−1.212 ± 0.072	-	483.20 ± 171.00	-	404.01/357	4.5567±0.99	7.5713E-07±1.4E-07
101123952	39	143.859:145.151	COMP	0.0253 ± 0.0065	−1.071 ± 0.068	-	423.40 ± 96.20	-	381.93/357	8.4633±1.7	1.5109E-06±2.6E-07
101123952	40	145.151:146.702	COMP	0.0353 ± 0.0119	−1.106 ± 0.080	-	241.40 ± 45.40	-	356.48/357	10.504±2.6	1.3679E-06±2.9E-07
101123952	41	146.702:150.041	PL	0.0040 ± 0.0012	−1.510 ± 0.032	-	-	-	423.7/358	2.3124±0.70	3.6417E-07±1.0E-07
101123952	42	150.041:156.672	none	-	-	-	-	-	-	-	-
101126198	1	-10.240:4.500	none	-	-	-	-	-	-	-	-
101126198	2	4.500:7.600	none	-	-	-	-	-	-	-	-
101126198	3	7.600:8.853	COMP	0.0407 ± 0.0131	−1.226 ± 0.068	-	182.20 ± 24.90	-	490.94/477	12.867±3.2	1.3575E-06±3.1E-07
101126198	4	8.853:9.900	COMP	0.0454 ± 0.0147	−1.147 ± 0.070	-	180.40 ± 22.30	-	567.86/477	12.914±3.3	1.4014E-06±3.3E-07
101126198	5	9.900:10.713	COMP	0.0678 ± 0.0165	−0.968 ± 0.063	-	215.30 ± 21.50	-	547.69/477	16.517±3.0	2.1615E-06±3.5E-07
101126198	6	10.713:11.571	COMP	0.0845 ± 0.0275	−1.109 ± 0.072	-	144.30 ± 13.90	-	654.62/477	21.126±5.3	2.0418E-06±4.7E-07
101126198	7	11.571:12.247	COMP	0.0787 ± 0.0188	−1.135 ± 0.061	-	215.10 ± 25.90	-	489.0/477	23.293±4.1	2.8079E-06±4.2E-07
101126198	8	12.247:12.934	COMP	0.1871 ± 0.0582	−0.952 ± 0.073	-	130.30 ± 9.49	-	532.57/477	35.950±8.1	3.4217E-06±7.1E-07
101126198	9	12.934:13.529	COMP	0.0661 ± 0.0153	−1.073 ± 0.059	-	242.40 ± 28.40	-	508.81/477	18.906±3.4	2.5203E-06±4.0E-07
101126198	10	13.529:14.117	COMP	0.0985 ± 0.0254	−0.966 ± 0.063	-	190.40 ± 17.10	-	561.95/477	22.819±4.4	2.7606E-06±4.8E-07
101126198	11	14.117:14.820	COMP	0.0591 ± 0.0158	−1.155 ± 0.060	-	205.30 ± 24.10	-	585.07/477	17.678±3.7	2.0557E-06±3.9E-07
101126198	12	14.820:15.604	COMP	0.1459 ± 0.0473	−1.119 ± 0.074	-	125.00 ± 10.80	-	556.04/477	35.077±8.2	3.1078E-06±6.6E-07
101126198	13	15.604:16.500	COMP	0.0992 ± 0.0290	−1.217 ± 0.067	-	141.50 ± 14.30	-	550.05/477	28.748±6.2	2.6554E-06±5.1E-07
101126198	14	16.500:18.011	PL	0.0060 ± 0.0022	−1.732 ± 0.027	-	-	-	629.68/478	4.2407±1.6	4.7103E-07±1.7E-07
101126198	15	18.011:20.287	PL	0.0064 ± 0.0020	−1.765 ± 0.029	-	-	-	596.44/478	4.7090±1.5	4.9687E-07±1.5E-07
101126198	16	20.287:24.754	none	-	-	-	-	-	-	-	-
101126198	17	24.754:33.327	none	-	-	-	-	-	-	-	-
101126198	18	33.327:67.584	none	-	-	-	-	-	-	-	-
101231067	1	-1.024:1.957	COMP	0.0184 ± 0.0040	−0.858 ± 0.076	-	479.00 ± 89.10	-	471.38/357	5.4501±0.89	1.2296E-06±1.7E-07
101231067	2	1.957:4.859	COMP	0.0247 ± 0.0082	−0.599 ± 0.097	-	256.80 ± 29.50	-	450.77/357	4.5515±1.2	8.0128E-07±1.9E-07
101231067	3	4.859:6.441	COMP	0.0931 ± 0.0210	−0.172 ± 0.101	-	255.10 ± 19.10	-	409.63/357	12.289±1.7	2.5530E-06±2.9E-07
101231067	4	6.441:8.155	COMP	0.0392 ± 0.0147	−0.426 ± 0.104	-	223.80 ± 21.20	-	447.02/357	5.6582±1.7	9.5886E-07±2.8E-07
101231067	5	8.155:20.542	none	-	-	-	-	-	-	-	-
101231067	6	20.542:21.644	none	-	-	-	-	-	-	-	-
101231067	7	21.644:23.054	none	-	-	-	-	-	-	-	-
101231067	8	23.054:25.600	none	-	-	-	-	-	-	-	-
110213220	1	-4.096:15.776	none	-	-	-	-	-	-	-	-
110213220	2	15.776:18.235	none	-	-	-	-	-	-	-	-
110213220	3	18.235:19.032	none	-	-	-	-	-	-	-	-
110213220	4	19.032:20.162	none	-	-	-	-	-	-	-	-
110213220	5	20.162:23.604	none	-	-	-	-	-	-	-	-
110213220	6	23.604:35.392	none	-	-	-	-	-	-	-	-
110213220	7	35.392:39.936	none	-	-	-	-	-	-	-	-
110301214	1	-1.024:0.480	COMP	0.0455 ± 0.0113	−0.795 ± 0.078	-	253.90 ± 27.70	-	504.18/477	9.9546±1.8	1.5825E-06±2.5E-07
110301214	2	0.480:0.751	COMP	0.4640 ± 0.1590	−0.737 ± 0.087	-	128.70 ± 8.11	-	441.47/477	65.727±16.0	6.5694E-06±1.5E-06
110301214	3	0.751:1.005	COMP	0.6507 ± 0.2490	−0.521 ± 0.095	-	120.60 ± 6.53	-	501.1/477	65.680±19.0	6.6091E-06±1.8E-06
110301214	4	1.005:1.191	COMP	0.6058 ± 0.2300	−0.429 ± 0.095	-	130.20 ± 6.96	-	442.45/477	57.532±17.0	6.2798E-06±1.7E-06
110301214	5	1.191:1.355	SBPL	0.2525 ± 0.0939	−0.732 ± 0.103	−3.681 ± 0.512	96.53 ± 17.96	105.70 ± 17.90	483.87/476	85.666±30.0	8.3735E-06±2.7E-06
110301214	6	1.355:1.515	PL	0.0205 ± 0.0072	−1.621 ± 0.029	-	-	-	718.54/478	12.952±4.6	1.7076E-06±6.0E-07
110301214	7	1.515:1.671	PL	0.0223 ± 0.0079	−1.660 ± 0.029	-	-	-	750.45/478	14.682±5.3	1.8193E-06±6.4E-07
110301214	8	1.671:1.803	PL	0.0230 ± 0.0081	−1.632 ± 0.029	-	-	-	649.42/478	14.699±5.3	1.9061E-06±6.7E-07
110301214	9	1.803:1.925	PL	0.0243 ± 0.0085	−1.609 ± 0.029	-	-	-	642.58/478	15.198±5.4	2.0436E-06±7.1E-07
110301214	10	1.925:2.029	COMP	0.8167 ± 0.3020	−0.778 ± 0.086	-	118.80 ± 7.06	-	446.88/477	116.69±33.0	1.0921E-05±3.0E-06
110301214	11	2.029:2.117	COMP	1.2360 ± 0.4170	−0.760 ± 0.082	-	121.90 ± 6.94	-	445.72/477	174.96±43.0	1.6738E-05±3.9E-06
110301214	12	2.117:2.208	BAND	0.7850 ± 0.2540	−0.651 ± 0.129	−2.484 ± 0.192	110.00 ± 11.10	78.12 ± 9.80	506.8/476	91.838±22.0	1.0243E-05±2.2E-06
110301214	13	2.208:2.289	COMP	0.9454 ± 0.2790	−0.829 ± 0.078	-	139.20 ± 8.99	-	479.54/477	158.75±34.0	1.6331E-05±3.2E-06

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
110301214	14	2.289:2.374	BAND	1.2860 ± 0.3750	−0.637 ± 0.128	−2.467 ± 0.175	109.40 ± 10.80	77.17 ± 9.19	421.25/476	147.01±29.0	1.6499E-05±2.9E-06
110301214	15	2.374:2.452	COMP	0.8467 ± 0.2310	−0.942 ± 0.072	-	154.30 ± 11.40	-	402.68/477	173.79±34.0	1.8486E-05±3.2E-06
110301214	16	2.452:2.535	COMP	0.7238 ± 0.2000	−0.916 ± 0.072	-	154.90 ± 11.00	-	480.89/477	143.92±29.0	1.5479E-05±2.9E-06
110301214	17	2.535:2.629	COMP	0.4422 ± 0.1200	−1.007 ± 0.071	-	170.70 ± 14.50	-	482.56/477	103.15±21.0	1.1436E-05±2.1E-06
110301214	18	2.629:2.730	COMP	0.6953 ± 0.2170	−0.891 ± 0.078	-	142.50 ± 10.20	-	463.03/477	128.57±29.0	1.3189E-05±2.7E-06
110301214	19	2.730:2.840	COMP	0.4449 ± 0.1430	−0.990 ± 0.076	-	143.50 ± 11.10	-	415.7/477	94.374±23.0	9.4290E-06±2.2E-06
110301214	20	2.840:2.954	BAND	0.3562 ± 0.1420	−0.960 ± 0.116	−2.643 ± 0.344	109.00 ± 12.80	91.93 ± 19.58	483.41/476	64.571±23.0	6.2238E-06±2.0E-06
110301214	21	2.954:3.078	COMP	0.4316 ± 0.1480	−0.948 ± 0.077	-	134.10 ± 9.78	-	450.47/477	83.707±23.0	8.1146E-06±2.1E-06
110301214	22	3.078:3.224	COMP	0.3490 ± 0.1180	−1.011 ± 0.077	-	136.70 ± 10.70	-	503.07/477	74.621±20.0	7.1843E-06±1.8E-06
110301214	23	3.224:3.372	COMP	0.4984 ± 0.1840	−1.090 ± 0.083	-	115.90 ± 9.10	-	513.21/477	111.49±31.0	9.5101E-06±2.4E-06
110301214	24	3.372:3.540	SBPL	0.1580 ± 0.0544	−0.984 ± 0.132	−2.814 ± 0.256	74.29 ± 16.17	68.77 ± 14.00	506.12/476	82.027±27.0	7.0152E-06±2.1E-06
110301214	25	3.540:3.703	SBPL	0.1770 ± 0.0603	−0.950 ± 0.130	−2.902 ± 0.257	72.53 ± 14.42	68.85 ± 12.90	496.81/476	91.885±30.0	7.6994E-06±2.3E-06
110301214	26	3.703:3.820	SBPL	0.3760 ± 0.1330	−1.074 ± 0.083	−3.833 ± 0.661	100.57 ± 22.10	125.50 ± 25.30	467.13/476	153.43±52.0	1.3435E-05±4.2E-06
110301214	27	3.820:3.908	COMP	0.5673 ± 0.1690	−0.894 ± 0.074	-	152.20 ± 11.10	-	487.02/477	108.65±25.0	1.1639E-05±2.4E-06
110301214	28	3.908:3.980	COMP	1.4110 ± 0.4370	−0.662 ± 0.084	-	131.90 ± 7.42	-	510.2/477	183.47±41.0	1.9046E-05±3.9E-06
110301214	29	3.980:4.050	BAND	1.2590 ± 0.4280	−0.509 ± 0.136	−2.594 ± 0.217	105.40 ± 9.52	77.36 ± 9.31	421.76/476	115.95±30.0	1.2791E-05±3.0E-06
110301214	30	4.050:4.129	COMP	2.3740 ± 0.8230	−0.687 ± 0.088	-	110.20 ± 5.71	-	416.36/477	283.76±68.0	2.5740E-05±5.8E-06
110301214	31	4.129:4.219	PL	0.0351 ± 0.0117	−1.674 ± 0.029	-	-	-	606.18/478	23.390±8.0	2.8356E-06±9.4E-07
110301214	32	4.219:4.320	COMP	1.5050 ± 0.5990	−0.956 ± 0.089	-	93.27 ± 5.27	-	464.64/477	245.80±72.0	1.8934E-05±5.3E-06
110301214	33	4.320:4.439	none	-	-	-	-	-	-	-	-
110301214	34	4.439:4.604	none	-	-	-	-	-	-	-	-
110301214	35	4.604:4.815	none	-	-	-	-	-	-	-	-
110301214	36	4.815:5.011	none	-	-	-	-	-	-	-	-
110301214	37	5.011:5.199	PL	0.0278 ± 0.0093	−1.793 ± 0.031	-	-	-	522.15/478	21.106±7.2	2.1273E-06±7.1E-07
110301214	38	5.199:5.444	none	-	-	-	-	-	-	-	-
110301214	39	5.444:5.860	none	-	-	-	-	-	-	-	-
110301214	40	5.860:6.582	none	-	-	-	-	-	-	-	-
110301214	41	6.582:7.850	none	-	-	-	-	-	-	-	-
110301214	42	7.850:16.384	none	-	-	-	-	-	-	-	-
110407998	1	-9.472:2.816	COMP	0.0080 ± 0.0013	−0.963 ± 0.056	-	812.20 ± 173.00	-	590.8/476	2.8890±0.36	7.3908E-07±8.1E-08
110407998	2	2.816:3.840	COMP	0.0596 ± 0.0075	−0.732 ± 0.051	-	539.50 ± 56.10	-	467.84/476	17.260±1.6	4.5758E-06±3.6E-07
110407998	3	3.840:4.864	COMP	0.0566 ± 0.0069	−0.810 ± 0.046	-	608.60 ± 70.30	-	486.58/476	17.708±1.6	4.6734E-06±3.5E-07
110407998	4	4.864:5.888	COMP	0.0471 ± 0.0064	−0.841 ± 0.053	-	662.40 ± 96.20	-	544.49/476	15.333±1.5	4.0883E-06±3.4E-07
110407998	5	5.888:7.936	COMP	0.0476 ± 0.0074	−0.939 ± 0.050	-	393.90 ± 44.10	-	548.53/476	14.012±1.6	2.6831E-06±2.6E-07
110407998	6	7.936:12.032	none	-	-	-	-	-	-	-	-
110407998	7	12.032:19.200	none	-	-	-	-	-	-	-	-
110428388	1	-1.280:3.840	COMP	0.0338 ± 0.0059	−0.722 ± 0.054	-	242.30 ± 16.70	-	440.21/360	6.7351±0.83	1.0727E-06±1.2E-07
110428388	2	3.840:4.864	COMP	0.1345 ± 0.0205	−0.328 ± 0.062	-	252.00 ± 13.10	-	437.3/360	19.642±1.9	3.8158E-06±3.1E-07
110428388	3	4.864:5.888	COMP	0.1857 ± 0.0544	−0.276 ± 0.089	-	158.80 ± 8.46	-	389.64/360	17.416±3.5	2.3254E-06±4.4E-07
110428388	4	5.888:6.912	COMP	0.3327 ± 0.0481	0.066 ± 0.061	-	202.40 ± 6.40	-	371.59/360	28.879±2.6	5.2355E-06±4.0E-07
110428388	5	6.912:7.936	SBPL	0.2021 ± 0.0274	−0.417 ± 0.053	−4.372 ± 0.433	141.59 ± 13.96	162.30 ± 14.20	354.05/359	47.184±6.0	6.6639E-06±7.5E-07
110428388	6	7.936:8.960	PL	0.0078 ± 0.0021	−1.600 ± 0.024	-	-	-	779.04/361	4.8388±1.3	6.6050E-07±1.7E-07
110428388	7	8.960:11.008	none	-	-	-	-	-	-	-	-
110622158	1	-8.192:18.304	SBPL	0.0061 ± 0.0009	−0.662 ± 0.111	−1.992 ± 0.045	166.39 ± 56.18	44.05 ± 4.97	992.76/478	2.7961±0.39	3.6745E-07±4.9E-08
110622158	2	18.304:19.070	COMP	0.1106 ± 0.0406	−0.783 ± 0.081	-	141.10 ± 9.57	-	500.22/479	17.610±5.2	1.8524E-06±5.2E-07
110622158	3	19.070:19.822	BAND	0.0836 ± 0.0322	−0.721 ± 0.111	−2.486 ± 0.283	123.60 ± 13.00	88.47 ± 15.00	538.67/478	11.636±4.2	1.3530E-06±4.5E-07
110622158	4	19.822:20.573	COMP	0.0942 ± 0.0304	−0.915 ± 0.072	-	154.90 ± 11.70	-	540.77/479	18.720±4.8	2.0119E-06±4.9E-07
110622158	5	20.573:21.315	BAND	0.0848 ± 0.0296	−0.708 ± 0.146	−2.075 ± 0.131	115.20 ± 17.40	64.49 ± 9.91	520.07/478	11.446±3.0	1.4931E-06±3.6E-07
110622158	6	21.315:22.133	COMP	0.0775 ± 0.0284	−0.916 ± 0.076	-	150.50 ± 11.70	-	526.52/479	15.214±4.6	1.6042E-06±4.6E-07
110622158	7	22.133:23.068	COMP	0.1134 ± 0.0368	−0.910 ± 0.075	-	139.70 ± 9.88	-	531.61/479	21.313±5.3	2.1431E-06±5.0E-07
110622158	8	23.068:24.054	BAND	0.0894 ± 0.0323	−0.700 ± 0.110	−2.572 ± 0.318	122.70 ± 12.10	91.49 ± 16.06	551.87/478	11.974±4.0	1.3688E-06±4.1E-07
110622158	9	24.054:25.194	COMP	0.1362 ± 0.0517	−0.687 ± 0.081	-	124.50 ± 6.75	-	510.22/479	17.675±5.4	1.7471E-06±5.2E-07
110622158	10	25.194:26.547	COMP	0.1932 ± 0.0585	−0.890 ± 0.075	-	123.10 ± 7.62	-	476.63/479	33.145±7.0	3.0835E-06±6.0E-07

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
110622158	11	26.547:28.077	COMP	0.1590 ± 0.0528	−0.695 ± 0.079	-	124.60 ± 6.66	-	571.25/479	20.872±5.2	2.0595E-06±4.9E-07
110622158	12	28.077:29.726	COMP	0.0396 ± 0.0157	−0.884 ± 0.072	-	156.60 ± 11.70	-	526.4/479	7.6082±2.6	8.3251E-07±2.8E-07
110622158	13	29.726:31.428	PL	0.0053 ± 0.0015	−1.588 ± 0.022	-	-	-	712.94/480	3.2764±0.94	4.5455E-07±1.3E-07
110622158	14	31.428:33.430	BAND	0.1880 ± 0.0696	−0.489 ± 0.120	−2.893 ± 0.363	96.85 ± 6.63	80.58 ± 12.00	580.32/478	15.538±5.3	1.5258E-06±4.7E-07
110622158	15	33.430:36.752	PL	0.0040 ± 0.0012	−1.635 ± 0.020	-	-	-	677.27/480	2.5406±0.77	3.2729E-07±9.7E-08
110622158	16	36.752:39.430	PL	0.0035 ± 0.0012	−1.591 ± 0.021	-	-	-	721.63/480	2.1546±0.74	2.9775E-07±1.0E-07
110622158	17	39.430:42.282	COMP	0.1066 ± 0.0382	−0.661 ± 0.080	-	121.70 ± 6.34	-	536.98/479	13.135±3.7	1.2860E-06±3.5E-07
110622158	18	42.282:51.555	PL	0.0031 ± 0.0009	−1.736 ± 0.017	-	-	-	852.35/480	2.1998±0.63	2.4155E-07±6.9E-08
110622158	19	51.555:108.544	none	-	-	-	-	-	-	-	-
110625881	1	-1.024:3.698	COMP	0.0215 ± 0.0054	−0.749 ± 0.087	-	247.40 ± 25.70	-	511.55/477	4.4586±0.81	7.1103E-07±1.1E-07
110625881	2	3.698:4.656	COMP	0.0892 ± 0.0121	−0.099 ± 0.079	-	324.60 ± 17.90	-	525.94/477	14.180±1.2	3.7285E-06±2.6E-07
110625881	3	4.656:8.158	COMP	0.0506 ± 0.0134	−0.377 ± 0.101	-	196.10 ± 13.40	-	491.79/477	6.3075±1.1	9.7433E-07±1.6E-07
110625881	4	8.158:10.611	COMP	0.0340 ± 0.0050	−0.718 ± 0.067	-	391.10 ± 39.60	-	501.08/477	8.5531±0.84	1.8992E-06±1.5E-07
110625881	5	10.611:10.801	COMP	0.2142 ± 0.0240	−0.403 ± 0.057	-	413.40 ± 25.70	-	473.59/477	47.172±3.7	1.3102E-05±8.5E-07
110625881	6	10.801:10.974	COMP	0.3125 ± 0.0425	−0.290 ± 0.065	-	319.10 ± 17.80	-	452.53/477	53.869±4.8	1.2934E-05±9.6E-07
110625881	7	10.974:11.155	COMP	0.3429 ± 0.0558	−0.361 ± 0.068	-	260.00 ± 14.80	-	495.29/477	52.659±5.7	1.0362E-05±9.5E-07
110625881	8	11.155:11.399	COMP	0.3488 ± 0.0694	−0.413 ± 0.073	-	210.90 ± 11.80	-	519.72/477	47.655±6.3	7.7247E-06±8.9E-07
110625881	9	11.399:11.729	BAND	0.5238 ± 0.1330	−0.088 ± 0.130	−2.494 ± 0.182	141.90 ± 10.70	92.93 ± 8.79	510.16/476	37.394±5.8	5.8918E-06±7.9E-07
110625881	10	11.729:12.385	COMP	0.3332 ± 0.1150	−0.514 ± 0.091	-	121.70 ± 6.01	-	511.22/477	33.576±8.5	3.4042E-06±8.3E-07
110625881	11	12.385:13.568	none	-	-	-	-	-	-	-	-
110625881	12	13.568:15.366	none	-	-	-	-	-	-	-	-
110625881	13	15.366:21.016	none	-	-	-	-	-	-	-	-
110625881	14	21.016:21.806	COMP	0.1166 ± 0.0452	−0.944 ± 0.087	-	125.70 ± 9.36	-	520.8/477	21.825±6.7	2.0279E-06±5.9E-07
110625881	15	21.806:22.347	COMP	0.1576 ± 0.0597	−0.738 ± 0.086	-	132.00 ± 8.08	-	519.07/477	22.732±7.0	2.3106E-06±6.9E-07
110625881	16	22.347:22.776	COMP	0.2395 ± 0.0799	−0.637 ± 0.087	-	136.40 ± 7.86	-	437.95/477	30.835±7.8	3.2994E-06±8.0E-07
110625881	17	22.776:23.133	COMP	0.5550 ± 0.1540	−0.607 ± 0.082	-	133.10 ± 6.91	-	514.62/477	67.617±13.0	7.1635E-06±1.2E-06
110625881	18	23.133:23.396	BAND	0.3330 ± 0.0833	−0.493 ± 0.123	−2.220 ± 0.145	150.10 ± 16.60	89.50 ± 10.73	483.99/476	40.224±6.1	6.1837E-06±8.0E-07
110625881	19	23.396:23.564	COMP	0.4407 ± 0.0798	−0.594 ± 0.066	-	227.40 ± 14.30	-	513.67/477	75.086±9.0	1.2054E-05±1.2E-06
110625881	20	23.564:23.746	COMP	0.2441 ± 0.0394	−0.753 ± 0.058	-	290.80 ± 22.60	-	491.25/477	54.882±6.3	9.7905E-06±9.4E-07
110625881	21	23.746:23.874	COMP	0.4013 ± 0.0644	−0.700 ± 0.059	-	285.30 ± 20.90	-	438.46/477	85.450±9.4	1.5476E-05±1.4E-06
110625881	22	23.874:24.008	SBPL	0.3155 ± 0.0365	−0.660 ± 0.086	−2.285 ± 0.123	204.08 ± 39.98	117.80 ± 16.60	478.47/476	95.240±9.9	1.7325E-05±1.5E-06
110625881	23	24.008:24.130	COMP	0.3754 ± 0.0592	−0.752 ± 0.055	-	291.50 ± 21.70	-	506.92/477	84.430±9.4	1.5093E-05±1.4E-06
110625881	24	24.130:24.243	COMP	0.3695 ± 0.0602	−0.794 ± 0.054	-	304.90 ± 24.70	-	500.55/477	87.855±10.0	1.5826E-05±1.5E-06
110625881	25	24.243:24.356	BAND	0.9011 ± 0.2030	−0.405 ± 0.103	−2.544 ± 0.186	166.60 ± 14.00	115.39 ± 12.19	449.98/476	104.58±14.0	1.6317E-05±1.8E-06
110625881	26	24.356:24.467	COMP	0.7107 ± 0.1510	−0.614 ± 0.068	-	181.30 ± 10.20	-	495.37/477	107.18±16.0	1.4324E-05±1.9E-06
110625881	27	24.467:24.587	BAND	1.2240 ± 0.3320	−0.252 ± 0.124	−2.659 ± 0.207	121.30 ± 8.85	87.21 ± 8.59	459.49/476	89.823±17.0	1.1558E-05±1.9E-06
110625881	28	24.587:24.712	BAND	0.6972 ± 0.1870	−0.461 ± 0.128	−2.302 ± 0.151	128.00 ± 12.90	80.41 ± 8.92	470.81/476	71.472±13.0	9.8508E-06±1.5E-06
110625881	29	24.712:24.836	BAND	1.2880 ± 0.3350	−0.330 ± 0.118	−2.660 ± 0.210	126.90 ± 9.39	92.03 ± 9.42	429.01/476	108.80±19.0	1.4111E-05±2.1E-06
110625881	30	24.836:24.986	COMP	0.5040 ± 0.1370	−0.731 ± 0.074	-	152.90 ± 9.28	-	508.62/477	78.636±15.0	8.8972E-06±1.6E-06
110625881	31	24.986:25.186	COMP	0.3441 ± 0.1070	−0.914 ± 0.077	-	141.30 ± 10.10	-	489.08/477	65.410±15.0	6.6152E-06±1.4E-06
110625881	32	25.186:25.424	COMP	0.2651 ± 0.0963	−0.774 ± 0.082	-	136.60 ± 8.64	-	510.59/477	41.006±12.0	4.2266E-06±1.2E-06
110625881	33	25.424:25.760	COMP	0.5747 ± 0.2100	−0.695 ± 0.090	-	107.80 ± 5.53	-	528.56/477	68.549±18.0	6.1074E-06±1.6E-06
110625881	34	25.760:26.267	SBPL	0.0303 ± 0.0110	−0.300 ± 0.341	−2.297 ± 0.109	62.34 ± 14.09	34.04 ± 6.74	556.44/476	16.917±6.1	1.6492E-06±5.7E-07
110625881	35	26.267:26.866	COMP	0.3498 ± 0.1070	−0.992 ± 0.082	-	121.30 ± 8.75	-	507.96/477	69.103±14.0	6.2000E-06±1.1E-06
110625881	36	26.866:27.315	COMP	0.1270 ± 0.0291	−0.916 ± 0.070	-	215.20 ± 20.20	-	550.38/477	29.279±4.7	3.9168E-06±5.5E-07
110625881	37	27.315:27.926	COMP	0.1221 ± 0.0406	−0.878 ± 0.081	-	146.70 ± 11.20	-	535.97/477	22.535±5.8	2.3630E-06±5.7E-07
110625881	38	27.926:28.394	COMP	0.2054 ± 0.0521	−0.818 ± 0.075	-	169.10 ± 12.50	-	523.0/477	37.711±6.6	4.4519E-06±6.9E-07
110625881	39	28.394:28.615	COMP	0.3650 ± 0.0683	−0.448 ± 0.070	-	223.00 ± 13.10	-	461.08/477	53.674±6.5	8.9929E-06±9.4E-07
110625881	40	28.615:29.140	COMP	0.2273 ± 0.0597	−0.889 ± 0.075	-	151.40 ± 10.70	-	503.49/477	43.216±7.8	4.6130E-06±7.4E-07
110625881	41	29.140:29.906	COMP	0.2114 ± 0.0651	−0.957 ± 0.082	-	127.90 ± 9.24	-	602.81/477	40.708±8.6	3.8116E-06±7.3E-07
110625881	42	29.906:38.793	none	-	-	-	-	-	-	-	-
110625881	43	38.793:61.440	none	-	-	-	-	-	-	-	-
110717319	1	-4.096:7.051	BAND	0.0118 ± 0.0028	−0.760 ± 0.117	−2.048 ± 0.174	311.00 ± 63.80	162.85 ± 36.07	639.73/476	2.8109±0.36	5.7790E-07±6.1E-08

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
110717319	2	7.051:9.156	COMP	0.0462 ± 0.0097	−0.590 ± 0.083	-	253.90 ± 21.70	-	498.89/477	8.3897±1.1	1.4695E-06±1.7E-07
110717319	3	9.156:11.290	COMP	0.0302 ± 0.0051	−0.957 ± 0.063	-	368.00 ± 47.70	-	504.57/477	8.8498±1.1	1.6082E-06±1.6E-07
110717319	4	11.290:12.697	COMP	0.0515 ± 0.0080	−0.862 ± 0.061	-	349.60 ± 37.10	-	546.81/477	13.706±1.4	2.5830E-06±2.1E-07
110717319	5	12.697:13.986	COMP	0.0406 ± 0.0056	−0.946 ± 0.055	-	465.90 ± 59.70	-	536.27/477	12.675±1.3	2.6270E-06±2.1E-07
110717319	6	13.986:15.084	COMP	0.0440 ± 0.0057	−0.800 ± 0.057	-	474.80 ± 51.10	-	559.24/477	12.575±1.2	2.9553E-06±2.2E-07
110717319	7	15.084:16.078	COMP	0.0471 ± 0.0054	−0.877 ± 0.051	-	576.60 ± 68.80	-	534.5/477	15.007±1.3	3.6474E-06±2.5E-07
110717319	8	16.078:17.817	COMP	0.0264 ± 0.0044	−0.885 ± 0.061	-	411.30 ± 51.20	-	488.91/477	7.5872±0.94	1.5457E-06±1.7E-07
110717319	9	17.817:18.602	COMP	0.0703 ± 0.0085	−0.679 ± 0.058	-	439.40 ± 38.70	-	529.08/477	18.215±1.5	4.4611E-06±2.9E-07
110717319	10	18.602:19.853	COMP	0.0630 ± 0.0128	−0.779 ± 0.071	-	244.40 ± 21.40	-	529.92/477	13.316±1.9	2.0750E-06±2.5E-07
110717319	11	19.853:20.977	COMP	0.0593 ± 0.0094	−0.759 ± 0.063	-	327.90 ± 29.80	-	576.23/477	14.177±1.5	2.7349E-06±2.4E-07
110717319	12	20.977:29.680	COMP	0.0175 ± 0.0055	−1.071 ± 0.089	-	188.20 ± 24.70	-	594.25/477	4.6082±1.0	5.2807E-07±1.0E-07
110717319	13	29.680:41.524	SBPL	0.0067 ± 0.0013	−0.740 ± 0.236	−1.810 ± 0.095	-	58.01 ± 17.90	576.8/476	2.6236±0.45	4.4546E-07±6.5E-08
110717319	14	41.524:45.569	COMP	0.0181 ± 0.0030	−1.080 ± 0.059	-	452.70 ± 75.50	-	550.4/477	6.2209±0.74	1.1367E-06±1.1E-07
110717319	15	45.569:88.612	PL	0.0011 ± 0.0003	−1.617 ± 0.045	-	-	-	1156.2/478	0.67934±0.21	9.0078E-08±2.6E-08
110717319	16	88.612:104.448	none	-	-	-	-	-	-	-	-
110721200	1	-1.024:0.711	COMP	0.0198 ± 0.0011	−0.980 ± 0.020	-	7409.00 ± 597.00	-	554.56/478	8.8715±0.50	3.0120E-06±1.3E-07
110721200	2	0.711:1.132	COMP	0.0556 ± 0.0034	−0.889 ± 0.024	-	2632.00 ± 216.00	-	585.61/478	23.424±1.4	8.2636E-06±4.0E-07
110721200	3	1.132:1.633	BAND	0.0601 ± 0.0050	−0.834 ± 0.036	−2.388 ± 0.206	1182.00 ± 165.00	782.80 ± 138.22	550.21/477	22.521±1.5	7.3227E-06±3.9E-07
110721200	4	1.633:2.043	COMP	0.0788 ± 0.0076	−0.926 ± 0.037	-	749.40 ± 85.90	-	533.31/478	27.548±2.1	7.1061E-06±4.5E-07
110721200	5	2.043:2.434	SBPL	0.1219 ± 0.0118	−0.662 ± 0.067	−2.104 ± 0.091	305.63 ± 102.84	130.80 ± 16.30	537.44/477	37.445±3.2	7.9245E-06±5.6E-07
110721200	6	2.434:2.798	BAND	0.2111 ± 0.0422	−0.588 ± 0.098	−1.925 ± 0.078	184.70 ± 23.00	91.30 ± 10.98	508.08/477	33.377±3.7	6.1246E-06±5.7E-07
110721200	7	2.798:3.213	SBPL	0.0826 ± 0.0101	−0.947 ± 0.081	−1.933 ± 0.085	331.13 ± 120.61	93.68 ± 18.00	530.44/477	31.348±3.5	5.2842E-06±5.0E-07
110721200	8	3.213:3.745	COMP	0.0761 ± 0.0119	−1.118 ± 0.044	-	354.00 ± 42.70	-	476.65/478	25.417±3.0	4.0182E-06±4.1E-07
110721200	9	3.745:4.430	COMP	0.0434 ± 0.0064	−1.299 ± 0.039	-	640.50 ± 144.00	-	458.65/478	18.940±2.3	3.1388E-06±3.2E-07
110721200	10	4.430:5.561	COMP	0.0403 ± 0.0060	−1.256 ± 0.041	-	479.60 ± 86.40	-	528.2/478	16.302±1.9	2.5908E-06±2.5E-07
110721200	11	5.561:7.413	COMP	0.0305 ± 0.0049	−1.183 ± 0.045	-	419.20 ± 67.30	-	587.07/478	11.265±1.4	1.8202E-06±1.8E-07
110721200	12	7.413:11.074	COMP	0.0187 ± 0.0034	−1.128 ± 0.051	-	366.70 ± 56.10	-	596.45/478	6.3621±0.88	1.0149E-06±1.2E-07
110721200	13	11.074:39.936	PL	0.0010 ± 0.0002	−1.381 ± 0.026	-	-	-	1349.2/479	0.50612±0.11	9.8288E-08±1.9E-08
110729142	1	-19.808:18.080	COMP	0.0074 ± 0.0019	−0.804 ± 0.081	-	248.90 ± 27.90	-	683.33/477	1.6165±0.29	2.5214E-07±3.9E-08
110729142	2	18.080:22.176	COMP	0.0165 ± 0.0022	−0.913 ± 0.050	-	572.40 ± 80.70	-	550.82/477	5.3451±0.53	1.2552E-06±1.0E-07
110729142	3	22.176:25.248	COMP	0.0246 ± 0.0044	−0.848 ± 0.063	-	356.90 ± 42.30	-	503.12/477	6.5114±0.82	1.2547E-06±1.3E-07
110729142	4	25.248:40.609	none	-	-	-	-	-	-	-	-
110729142	5	40.609:75.425	none	-	-	-	-	-	-	-	-
110729142	6	151.202:176.803	COMP	0.0064 ± 0.0015	−0.899 ± 0.067	-	274.10 ± 31.20	-	737.05/477	1.5881±0.30	2.5120E-07±4.4E-08
110729142	7	176.803:200.355	SBPL	0.0027 ± 0.0010	−0.998 ± 0.085	−2.845 ± 0.877	193.89 ± 92.28	186.70 ± 74.00	585.77/476	0.95079±0.36	1.4367E-07±4.9E-08
110729142	8	319.141:379.558	COMP	0.0024 ± 0.0007	−1.226 ± 0.057	-	298.00 ± 51.90	-	890.21/477	0.86170±0.23	1.1611E-07±2.9E-08
110729142	9	379.558:393.894	COMP	0.0126 ± 0.0023	−1.160 ± 0.049	-	276.20 ± 33.90	-	562.4/477	4.1238±0.57	5.5992E-07±6.6E-08
110729142	10	393.894:459.431	PL	0.0008 ± 0.0002	−1.597 ± 0.025	-	-	-	839.68/478	0.47959±0.14	6.5753E-08±1.9E-08
110731465	1	-1.024:0.897	COMP	0.0475 ± 0.0177	−0.985 ± 0.093	-	164.10 ± 17.90	-	401.07/360	10.608±3.0	1.1549E-06±3.0E-07
110731465	2	0.897:1.807	COMP	0.1114 ± 0.0331	−0.815 ± 0.091	-	183.00 ± 17.10	-	423.65/360	21.220±4.2	2.6510E-06±4.6E-07
110731465	3	1.807:2.989	COMP	0.0477 ± 0.0101	−0.847 ± 0.078	-	330.60 ± 44.00	-	412.92/360	12.261±1.7	2.2526E-06±2.6E-07
110731465	4	2.989:4.167	COMP	0.0428 ± 0.0073	−0.729 ± 0.074	-	421.80 ± 53.00	-	413.74/360	11.214±1.3	2.5880E-06±2.4E-07
110731465	5	4.167:5.246	COMP	0.0619 ± 0.0089	−0.416 ± 0.078	-	407.10 ± 35.10	-	359.82/360	13.562±1.2	3.6964E-06±2.6E-07
110731465	6	5.246:6.177	COMP	0.0461 ± 0.0077	−0.954 ± 0.064	-	491.10 ± 80.30	-	384.03/360	14.694±1.7	3.0997E-06±2.9E-07
110731465	7	6.177:7.159	COMP	0.0444 ± 0.0073	−0.494 ± 0.082	-	422.50 ± 44.30	-	423.05/360	10.297±1.1	2.7589E-06±2.5E-07
110731465	8	7.159:10.240	PL	0.0060 ± 0.0016	−1.614 ± 0.060	-	-	-	469.7/361	3.7676±1.2	5.0112E-07±1.2E-07
110817191	1	0.000:0.982	BAND	0.0750 ± 0.0126	−0.342 ± 0.096	−2.127 ± 0.097	314.00 ± 32.90	172.87 ± 18.40	603.61/474	13.549±1.2	3.5173E-06±2.7E-07
110817191	2	0.982:1.458	BAND	0.2240 ± 0.0448	−0.341 ± 0.101	−2.217 ± 0.058	208.50 ± 18.10	121.76 ± 10.30	514.45/474	29.667±3.1	5.9182E-06±5.3E-07
110817191	3	1.458:1.936	COMP	0.3277 ± 0.0743	−0.284 ± 0.080	-	174.80 ± 8.24	-	496.11/475	33.841±5.2	4.8859E-06±6.8E-07
110817191	4	1.936:2.593	COMP	0.1261 ± 0.0317	−0.657 ± 0.069	-	177.80 ± 10.40	-	597.18/475	19.743±3.9	2.5597E-06±4.8E-07
110817191	5	2.593:3.570	PL	0.0141 ± 0.0020	−1.592 ± 0.021	-	-	-	834.52/476	8.7021±1.3	1.2000E-06±1.6E-07
110817191	6	3.570:6.214	PL	0.0066 ± 0.0015	−1.702 ± 0.020	-	-	-	2966.4/476	4.5429±1.1	5.2579E-07±1.2E-07
110817191	7	6.214:10.240	PL	0.0030 ± 0.0006	−1.798 ± 0.030	-	-	-	10505.0/476	2.3146±0.54	2.3085E-07±4.6E-08

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
110825102	1	-1.024:11.395	none	-	-	-	-	-	-	-	-
110825102	2	11.395:12.007	COMP	0.1996 ± 0.0587	−0.885 ± 0.070	-	148.90 ± 10.30	-	496.62/478	37.423±8.4	3.9588E-06±8.3E-07
110825102	3	12.007:12.420	PL	0.0184 ± 0.0055	−1.658 ± 0.022	-	-	-	825.48/479	12.087±3.7	1.5027E-06±4.5E-07
110825102	4	12.420:12.635	COMP	0.3171 ± 0.0746	−0.698 ± 0.066	-	193.40 ± 12.60	-	483.3/478	54.536±9.7	7.4224E-06±1.2E-06
110825102	5	12.635:12.829	COMP	0.3425 ± 0.0711	−0.786 ± 0.063	-	215.10 ± 15.60	-	509.75/478	68.495±10.0	9.7192E-06±1.3E-06
110825102	6	12.829:13.053	COMP	0.3495 ± 0.0927	−0.836 ± 0.068	-	165.00 ± 11.10	-	486.08/478	64.762±13.0	7.4731E-06±1.4E-06
110825102	7	13.053:13.348	COMP	0.3594 ± 0.1080	−0.857 ± 0.072	-	141.20 ± 8.97	-	481.51/478	63.234±14.0	6.5110E-06±1.4E-06
110825102	8	13.348:13.637	COMP	0.3137 ± 0.0723	−0.780 ± 0.067	-	187.60 ± 13.10	-	553.22/478	58.137±9.6	7.4966E-06±1.1E-06
110825102	9	13.637:14.530	SBPL	0.0663 ± 0.0249	−1.414 ± 0.096	−2.722 ± 0.308	71.53 ± 22.06	75.99 ± 21.50	528.93/477	44.499±16.0	3.3225E-06±1.1E-06
110825102	10	14.530:15.202	COMP	0.2580 ± 0.1030	−1.181 ± 0.079	-	97.85 ± 6.86	-	533.39/478	62.188±19.0	4.7266E-06±1.4E-06
110825102	11	15.202:15.522	COMP	0.1766 ± 0.0389	−1.108 ± 0.058	-	231.20 ± 25.30	-	469.93/478	51.890±8.5	6.5939E-06±9.5E-07
110825102	12	15.522:15.662	COMP	0.2978 ± 0.0300	−0.625 ± 0.047	-	565.70 ± 46.50	-	450.64/478	84.528±6.1	2.4879E-05±1.4E-06
110825102	13	15.662:15.851	COMP	0.2702 ± 0.0358	−0.726 ± 0.051	-	397.50 ± 34.00	-	463.06/478	68.755±6.3	1.5350E-05±1.2E-06
110825102	14	15.851:16.096	COMP	0.2052 ± 0.0275	−0.897 ± 0.048	-	418.70 ± 43.00	-	500.98/478	59.777±5.7	1.2194E-05±9.6E-07
110825102	15	16.096:16.338	COMP	0.1994 ± 0.0311	−0.756 ± 0.056	-	348.90 ± 31.60	-	460.37/478	48.868±5.4	9.8443E-06±9.2E-07
110825102	16	16.338:16.584	COMP	0.1791 ± 0.0222	−0.587 ± 0.053	-	439.30 ± 35.40	-	550.5/478	44.294±3.9	1.1527E-05±8.5E-07
110825102	17	16.584:16.911	COMP	0.1813 ± 0.0298	−0.538 ± 0.063	-	307.50 ± 22.90	-	508.23/478	35.538±4.0	7.3921E-06±7.2E-07
110825102	18	16.911:17.317	COMP	0.2232 ± 0.0513	−0.563 ± 0.071	-	204.80 ± 13.50	-	516.07/478	34.506±5.7	5.1701E-06±7.7E-07
110825102	19	17.317:17.784	COMP	0.2085 ± 0.0467	−0.629 ± 0.069	-	203.30 ± 13.40	-	506.9/478	34.311±5.5	4.9824E-06±7.3E-07
110825102	20	17.784:18.272	COMP	0.2792 ± 0.0819	−0.502 ± 0.077	-	156.40 ± 8.34	-	530.48/478	33.463±7.5	4.1353E-06±8.9E-07
110825102	21	18.272:18.739	COMP	0.1786 ± 0.0354	−0.599 ± 0.067	-	233.30 ± 15.90	-	513.74/478	31.028±4.4	5.0746E-06±6.4E-07
110825102	22	18.739:19.340	COMP	0.1204 ± 0.0285	−0.755 ± 0.069	-	223.00 ± 18.40	-	533.3/478	23.744±4.2	3.5059E-06±5.6E-07
110825102	23	19.340:27.648	none	-	-	-	-	-	-	-	-
110825102	24	70.656:80.669	PL	0.0037 ± 0.0014	−1.794 ± 0.032	-	-	-	562.3/479	2.7837±1.1	2.7986E-07±1.0E-07
110825102	25	80.669:82.944	none	-	-	-	-	-	-	-	-
110903009	1	-7.168:0.692	none	-	-	-	-	-	-	-	-
110903009	2	0.692:3.221	none	-	-	-	-	-	-	-	-
110903009	3	3.221:3.897	none	-	-	-	-	-	-	-	-
110903009	4	3.897:4.197	none	-	-	-	-	-	-	-	-
110903009	5	4.197:4.513	none	-	-	-	-	-	-	-	-
110903009	6	4.513:4.979	none	-	-	-	-	-	-	-	-
110903009	7	4.979:5.469	none	-	-	-	-	-	-	-	-
110903009	8	5.469:6.328	none	-	-	-	-	-	-	-	-
110903009	9	6.328:20.954	none	-	-	-	-	-	-	-	-
110903009	10	20.954:22.134	COMP	0.1074 ± 0.0413	−1.122 ± 0.087	-	131.40 ± 13.90	-	450.88/359	26.530±7.4	2.4108E-06±6.1E-07
110903009	11	22.134:23.851	SBPL	0.0249 ± 0.0086	−1.228 ± 0.238	−2.292 ± 0.155	53.73 ± 21.48	37.98 ± 13.60	434.84/358	19.105±6.6	1.4993E-06±4.7E-07
110903009	12	23.851:28.672	none	-	-	-	-	-	-	-	-
110920546	1	-3.584:6.656	SBPL	0.0123 ± 0.0008	−0.536 ± 0.041	−3.584 ± 0.760	492.19 ± 118.14	496.50 ± 91.70	529.63/477	4.7317±0.24	1.6924E-06±7.1E-08
110920546	2	6.656:8.704	COMP	0.0461 ± 0.0037	−0.279 ± 0.050	-	553.90 ± 32.40	-	523.44/478	12.031±0.64	4.3515E-06±1.9E-07
110920546	3	8.704:10.752	SBPL	0.0380 ± 0.0027	−0.415 ± 0.046	−3.483 ± 0.499	392.83 ± 65.72	379.60 ± 52.40	532.4/477	13.126±0.72	4.3394E-06±2.0E-07
110920546	4	10.752:12.800	SBPL	0.0405 ± 0.0031	−0.394 ± 0.050	−3.019 ± 0.315	363.09 ± 53.90	306.80 ± 36.70	541.8/477	13.225±0.77	4.1616E-06±2.0E-07
110920546	5	12.800:14.848	SBPL	0.0402 ± 0.0031	−0.316 ± 0.057	−2.776 ± 0.237	348.74 ± 48.86	263.80 ± 29.00	537.65/477	12.590±0.77	3.9646E-06±2.0E-07
110920546	6	14.848:16.896	COMP	0.0663 ± 0.0066	−0.135 ± 0.058	-	393.10 ± 19.80	-	560.9/478	12.769±0.78	3.8793E-06±2.0E-07
110920546	7	16.896:19.968	COMP	0.0659 ± 0.0060	−0.114 ± 0.051	-	367.30 ± 15.50	-	526.55/478	11.851±0.66	3.4377E-06±1.6E-07
110920546	8	19.968:23.040	SBPL	0.0379 ± 0.0031	−0.457 ± 0.047	−3.166 ± 0.344	290.63 ± 41.47	261.60 ± 30.20	539.52/477	11.237±0.75	2.9304E-06±1.7E-07
110920546	9	23.040:26.112	SBPL	0.0431 ± 0.0036	−0.365 ± 0.052	−3.597 ± 0.432	269.38 ± 36.87	265.60 ± 30.00	535.3/477	12.143±0.82	3.0936E-06±1.8E-07
110920546	10	26.112:29.184	COMP	0.0726 ± 0.0093	−0.172 ± 0.063	-	290.40 ± 14.00	-	575.44/478	10.785±0.85	2.5080E-06±1.7E-07
110920546	11	29.184:33.281	COMP	0.0835 ± 0.0107	−0.006 ± 0.063	-	258.40 ± 10.20	-	509.07/478	10.010±0.78	2.2213E-06±1.5E-07
110920546	12	33.281:37.377	COMP	0.0578 ± 0.0085	−0.180 ± 0.063	-	256.00 ± 11.70	-	488.86/478	7.6851±0.76	1.5971E-06±1.4E-07
110920546	13	37.377:41.473	COMP	0.0705 ± 0.0120	−0.091 ± 0.071	-	228.90 ± 10.20	-	550.36/478	7.9026±0.89	1.5318E-06±1.5E-07
110920546	14	41.473:46.593	COMP	0.0864 ± 0.0147	−0.054 ± 0.069	-	207.30 ± 8.06	-	583.78/478	8.4921±0.94	1.5223E-06±1.5E-07
110920546	15	46.593:52.737	COMP	0.0513 ± 0.0110	−0.109 ± 0.070	-	199.20 ± 8.18	-	535.6/478	5.0693±0.83	8.6340E-07±1.3E-07
110920546	16	52.737:58.881	COMP	0.0687 ± 0.0150	−0.203 ± 0.072	-	183.30 ± 7.94	-	589.38/478	6.8202±1.1	1.0509E-06±1.6E-07

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
110920546	17	58.881:67.073	COMP	0.1102 ± 0.0293	0.025 ± 0.080	-	149.90 ± 5.09	-	559.4/478	7.0315±1.4	9.6271E-07±1.8E-07
110920546	18	67.073:76.289	PL	0.0019 ± 0.0005	−1.408 ± 0.016	-	-	-	1165.8/479	0.98380±0.25	1.8329E-07±4.6E-08
110920546	19	76.289:87.553	PL	0.0017 ± 0.0005	−1.463 ± 0.017	-	-	-	1249.7/479	0.95122±0.28	1.6222E-07±4.7E-08
110920546	20	87.553:102.914	PL	0.0017 ± 0.0005	−1.529 ± 0.017	-	-	-	1345.1/479	0.99382±0.31	1.5228E-07±4.6E-08
110920546	21	102.914:131.586	none	-	-	-	-	-	-	-	-
110920546	22	131.586:235.012	none	-	-	-	-	-	-	-	-
110921912	1	0.000:1.627	COMP	0.0269 ± 0.0031	−1.007 ± 0.045	-	862.70 ± 156.00	-	357.2/359	10.049±0.91	2.4969E-06±1.8E-07
110921912	2	1.627:2.290	COMP	0.0559 ± 0.0062	−0.837 ± 0.048	-	700.10 ± 88.40	-	414.77/359	18.486±1.5	5.0550E-06±3.2E-07
110921912	3	2.290:2.705	COMP	0.1063 ± 0.0128	−0.698 ± 0.054	-	488.50 ± 45.70	-	388.95/359	29.153±2.4	7.5033E-06±4.8E-07
110921912	4	2.705:3.001	COMP	0.1201 ± 0.0136	−0.728 ± 0.049	-	568.30 ± 55.80	-	335.01/359	35.471±2.9	9.6799E-06±6.1E-07
110921912	5	3.001:3.280	COMP	0.1317 ± 0.0129	−0.756 ± 0.044	-	674.50 ± 65.50	-	364.25/359	41.803±3.1	1.2079E-05±6.7E-07
110921912	6	3.280:3.697	COMP	0.1192 ± 0.0168	−0.769 ± 0.055	-	402.60 ± 39.20	-	427.09/359	31.350±3.0	6.8525E-06±5.0E-07
110921912	7	3.697:5.237	BAND	0.0900 ± 0.0216	−0.642 ± 0.104	−2.298 ± 0.194	198.90 ± 25.00	123.79 ± 18.81	380.23/358	15.234±2.0	2.5208E-06±2.7E-07
110921912	8	5.237:6.762	COMP	0.0442 ± 0.0069	−0.848 ± 0.059	-	394.90 ± 46.40	-	374.99/359	12.179±1.3	2.4913E-06±2.0E-07
110921912	9	6.762:7.831	COMP	0.0503 ± 0.0069	−0.851 ± 0.053	-	488.50 ± 59.60	-	418.23/359	14.964±1.4	3.4295E-06±2.5E-07
110921912	10	7.831:17.409	COMP	0.0086 ± 0.0015	−1.262 ± 0.054	-	801.50 ± 274.00	-	418.28/359	3.7473±0.50	6.8473E-07±7.2E-08
110921912	11	17.409:17.853	BAND	0.1100 ± 0.0178	−0.844 ± 0.068	−2.137 ± 0.135	467.60 ± 84.90	263.44 ± 50.12	375.44/358	32.282±3.0	7.4305E-06±5.0E-07
110921912	12	17.853:24.576	PL	0.0021 ± 0.0007	−1.569 ± 0.039	-	-	-	418.52/360	1.2644±0.46	1.8122E-07±6.2E-08
111003465	1	0.000:2.102	COMP	0.0416 ± 0.0055	−0.431 ± 0.059	-	394.80 ± 27.80	-	533.81/479	8.9955±0.84	2.3829E-06±1.9E-07
111003465	2	2.102:3.479	BAND	0.1274 ± 0.0269	−0.242 ± 0.105	−2.228 ± 0.145	188.20 ± 16.30	109.98 ± 10.95	541.97/478	14.185±1.9	2.7591E-06±3.2E-07
111003465	3	3.479:4.262	COMP	0.1156 ± 0.0181	−0.585 ± 0.056	-	287.50 ± 19.10	-	537.38/479	22.514±2.5	4.3506E-06±4.1E-07
111003465	4	4.262:5.205	COMP	0.0724 ± 0.0157	−0.671 ± 0.063	-	248.80 ± 18.80	-	500.88/479	13.953±2.4	2.3208E-06±3.6E-07
111003465	5	5.205:7.749	COMP	0.0619 ± 0.0201	−0.917 ± 0.074	-	158.50 ± 13.40	-	565.49/479	12.465±3.1	1.3610E-06±3.2E-07
111003465	6	7.749:9.731	PL	0.0060 ± 0.0020	−1.627 ± 0.022	-	-	-	681.54/480	3.8297±1.3	5.0049E-07±1.6E-07
111003465	7	9.731:11.142	SBPL	0.0239 ± 0.0087	−1.072 ± 0.112	−2.336 ± 0.170	94.89 ± 26.26	65.75 ± 14.70	483.57/478	11.955±4.2	1.2293E-06±4.1E-07
111003465	8	11.142:13.798	PL	0.0059 ± 0.0022	−1.739 ± 0.024	-	-	-	637.07/480	4.2367±1.6	4.6402E-07±1.7E-07
111003465	9	13.798:31.744	none	-	-	-	-	-	-	-	-
111127810	1	-1.024:5.883	none	-	-	-	-	-	-	-	-
111127810	2	5.883:7.122	none	-	-	-	-	-	-	-	-
111127810	3	7.122:7.892	PL	0.0117 ± 0.0039	−1.824 ± 0.027	-	-	-	568.7/479	9.1861±3.1	8.8214E-07±2.9E-07
111127810	4	7.892:8.632	PL	0.0113 ± 0.0039	−1.831 ± 0.027	-	-	-	686.3/479	8.9889±3.2	8.5450E-07±3.0E-07
111127810	5	8.632:9.611	PL	0.0108 ± 0.0040	−1.914 ± 0.030	-	-	-	590.47/479	9.5460±3.5	8.0379E-07±2.9E-07
111127810	6	9.611:10.890	none	-	-	-	-	-	-	-	-
111127810	7	10.890:13.352	none	-	-	-	-	-	-	-	-
111127810	8	13.352:18.432	none	-	-	-	-	-	-	-	-
111216389	1	-11.264:7.344	PL	0.0013 ± 0.0004	−1.467 ± 0.040	-	-	-	675.54/358	0.71569±0.25	1.2087E-07±3.8E-08
111216389	2	7.344:21.909	none	-	-	-	-	-	-	-	-
111216389	3	21.909:36.494	PL	0.0029 ± 0.0007	−1.576 ± 0.037	-	-	-	545.73/358	1.7560±0.45	2.4855E-07±5.8E-08
111216389	4	36.494:44.000	PL	0.0017 ± 0.0007	−1.481 ± 0.029	-	-	-	549.55/358	0.97295±0.39	1.6066E-07±6.3E-08
111216389	5	44.000:49.185	COMP	0.0231 ± 0.0073	−0.823 ± 0.087	-	228.20 ± 26.90	-	468.28/357	4.9383±1.2	7.1791E-07±1.6E-07
111216389	6	49.185:54.372	COMP	0.0186 ± 0.0049	−0.908 ± 0.078	-	303.50 ± 43.70	-	376.87/357	4.8674±0.95	8.1590E-07±1.4E-07
111216389	7	54.372:58.106	COMP	0.0184 ± 0.0047	−1.131 ± 0.067	-	356.70 ± 70.10	-	386.99/357	6.2439±1.2	9.8008E-07±1.7E-07
111216389	8	58.106:60.443	COMP	0.0258 ± 0.0056	−0.844 ± 0.069	-	368.90 ± 49.00	-	393.73/357	6.9046±1.1	1.3595E-06±2.0E-07
111216389	9	60.443:64.215	COMP	0.0347 ± 0.0094	−0.874 ± 0.079	-	235.80 ± 27.20	-	419.74/357	7.9594±1.6	1.1544E-06±2.0E-07
111216389	10	64.215:68.167	PL	0.0037 ± 0.0014	−1.622 ± 0.028	-	-	-	487.39/358	2.3431±0.93	3.0763E-07±1.2E-07
111216389	11	68.167:72.299	SBPL	0.0158 ± 0.0060	−1.211 ± 0.086	−2.589 ± 0.477	143.17 ± 64.32	126.80 ± 44.20	377.07/356	6.8363±2.5	7.7516E-07±2.5E-07
111216389	12	72.299:75.994	SBPL	0.0150 ± 0.0058	−1.170 ± 0.085	−2.587 ± 0.483	148.95 ± 65.98	131.60 ± 45.00	431.06/356	6.2090±2.3	7.4017E-07±2.5E-07
111216389	13	75.994:79.492	COMP	0.0451 ± 0.0165	−0.958 ± 0.086	-	165.80 ± 17.60	-	442.65/357	9.7919±2.7	1.0831E-06±2.8E-07
111216389	14	79.492:82.001	PL	0.0034 ± 0.0013	−1.503 ± 0.026	-	-	-	408.57/358	1.9302±0.77	3.0752E-07±1.2E-07
111216389	15	82.001:86.266	COMP	0.0403 ± 0.0123	−0.837 ± 0.084	-	199.90 ± 20.90	-	368.18/357	8.2182±1.8	1.0824E-06±2.1E-07
111216389	16	86.266:98.304	none	-	-	-	-	-	-	-	-
111220486	1	-4.096:6.144	COMP	0.0236 ± 0.0026	−0.839 ± 0.036	-	370.90 ± 27.20	-	681.14/470	6.2973±0.50	1.2496E-06±8.5E-08
111220486	2	6.144:9.216	COMP	0.0504 ± 0.0079	−0.884 ± 0.046	-	271.60 ± 22.30	-	515.52/470	12.368±1.4	1.9616E-06±1.9E-07

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
111220486	3	9.216:15.360	COMP	0.0237 ± 0.0040	−1.051 ± 0.042	-	294.90 ± 29.50	-	508.91/470	7.0443±0.92	1.0623E-06±1.2E-07
111220486	4	15.360:16.384	COMP	0.0613 ± 0.0069	−1.003 ± 0.035	-	538.90 ± 62.80	-	512.78/470	20.644±1.8	4.3567E-06±3.2E-07
111220486	5	16.384:17.408	COMP	0.0822 ± 0.0096	−0.941 ± 0.037	-	402.60 ± 36.40	-	522.98/470	24.411±2.1	4.7192E-06±3.4E-07
111220486	6	17.408:18.432	COMP	0.1025 ± 0.0131	−0.995 ± 0.038	-	321.20 ± 27.20	-	497.98/470	29.653±2.7	4.8701E-06±3.7E-07
111220486	7	18.432:19.456	COMP	0.0912 ± 0.0082	−0.967 ± 0.029	-	499.20 ± 42.40	-	485.05/470	29.413±2.0	6.1976E-06±3.5E-07
111220486	8	19.456:21.504	COMP	0.0732 ± 0.0096	−1.024 ± 0.034	-	263.50 ± 18.50	-	512.3/470	20.421±2.0	2.9352E-06±2.6E-07
111220486	9	21.504:30.721	COMP	0.0165 ± 0.0042	−1.357 ± 0.045	-	198.80 ± 26.10	-	580.71/470	6.3537±1.4	6.5759E-07±1.3E-07
111220486	10	30.721:53.249	none	-	-	-	-	-	-	-	-
111228657	1	-62.721:-34.049	none	-	-	-	-	-	-	-	-
111228657	2	-13.568:1.792	none	-	-	-	-	-	-	-	-
111228657	3	1.792:3.840	PL	0.0081 ± 0.0029	−1.928 ± 0.033	-	-	-	523.54/476	7.3065±2.7	6.0155E-07±2.2E-07
111228657	4	3.840:4.864	PL	0.0091 ± 0.0034	−1.809 ± 0.026	-	-	-	515.36/476	7.1001±2.7	6.9596E-07±2.6E-07
111228657	5	4.864:6.912	none	-	-	-	-	-	-	-	-
111228657	6	6.912:7.936	SBPL	0.0174 ± 0.0063	−1.166 ± 0.221	−2.128 ± 0.096	64.07 ± 28.04	32.86 ± 10.20	548.88/474	12.532±4.5	1.0948E-06±3.8E-07
111228657	7	7.936:9.984	none	-	-	-	-	-	-	-	-
111228657	8	9.984:16.128	none	-	-	-	-	-	-	-	-
111228657	9	41.729:47.873	none	-	-	-	-	-	-	-	-
111228657	10	47.873:48.897	none	-	-	-	-	-	-	-	-
111228657	11	48.897:52.993	none	-	-	-	-	-	-	-	-
111228657	12	52.993:61.185	none	-	-	-	-	-	-	-	-
120119170	1	-2.048:7.492	COMP	0.0220 ± 0.0056	−0.710 ± 0.091	-	214.60 ± 20.50	-	624.78/477	4.0608±0.68	5.9409E-07±8.5E-08
120119170	2	7.492:9.296	COMP	0.0338 ± 0.0067	−0.795 ± 0.070	-	304.90 ± 32.60	-	561.94/477	8.0496±1.1	1.4482E-06±1.8E-07
120119170	3	9.296:10.980	COMP	0.0884 ± 0.0232	−0.736 ± 0.082	-	170.30 ± 12.70	-	512.87/477	14.769±2.6	1.8038E-06±2.8E-07
120119170	4	10.980:12.804	COMP	0.0558 ± 0.0180	−0.876 ± 0.082	-	160.30 ± 13.80	-	543.6/477	10.730±2.6	1.1953E-06±2.7E-07
120119170	5	12.804:14.094	COMP	0.0568 ± 0.0136	−0.972 ± 0.070	-	215.80 ± 22.40	-	560.03/477	13.961±2.4	1.8214E-06±2.7E-07
120119170	6	14.094:14.898	COMP	0.0661 ± 0.0120	−0.920 ± 0.060	-	298.20 ± 31.60	-	558.45/477	17.412±2.3	2.8653E-06±3.1E-07
120119170	7	14.898:15.635	COMP	0.0697 ± 0.0124	−0.910 ± 0.060	-	317.60 ± 34.70	-	534.72/477	18.630±2.3	3.2080E-06±3.4E-07
120119170	8	15.635:16.517	COMP	0.0768 ± 0.0148	−0.891 ± 0.066	-	268.00 ± 27.40	-	551.6/477	18.900±2.5	2.9558E-06±3.2E-07
120119170	9	16.517:17.824	COMP	0.0568 ± 0.0139	−0.835 ± 0.072	-	214.30 ± 19.30	-	509.5/477	11.962±2.1	1.6553E-06±2.6E-07
120119170	10	17.824:18.605	COMP	0.0520 ± 0.0110	−0.885 ± 0.066	-	293.10 ± 32.50	-	501.99/477	13.177±2.1	2.1912E-06±3.0E-07
120119170	11	18.605:19.534	COMP	0.0624 ± 0.0125	−1.077 ± 0.061	-	272.90 ± 33.70	-	551.72/477	18.657±2.7	2.6472E-06±3.2E-07
120119170	12	19.534:21.166	COMP	0.0532 ± 0.0134	−1.148 ± 0.069	-	197.30 ± 23.40	-	523.48/477	15.647±2.8	1.7795E-06±2.7E-07
120119170	13	21.166:23.026	COMP	0.0528 ± 0.0178	−1.001 ± 0.081	-	151.90 ± 14.00	-	529.78/477	11.665±3.0	1.2017E-06±2.9E-07
120119170	14	23.026:26.149	SBPL	0.0090 ± 0.0036	−1.079 ± 0.146	−2.198 ± 0.196	112.22 ± 49.94	67.06 ± 21.40	538.53/476	4.3070±1.6	4.8634E-07±1.7E-07
120119170	15	26.149:28.980	none	-	-	-	-	-	-	-	-
120119170	16	28.980:31.807	COMP	0.0550 ± 0.0195	−0.961 ± 0.089	-	140.90 ± 12.90	-	500.29/477	11.132±2.8	1.1074E-06±2.6E-07
120119170	17	31.807:37.481	none	-	-	-	-	-	-	-	-
120119170	18	37.481:58.368	none	-	-	-	-	-	-	-	-
120129580	1	-1.024:0.704	none	-	-	-	-	-	-	-	-
120129580	2	0.704:0.951	SBPL	0.1168 ± 0.0406	−0.655 ± 0.207	−2.469 ± 0.247	89.69 ± 27.24	60.86 ± 15.20	272.0/237	49.000±16.0	5.3954E-06±1.5E-06
120129580	3	0.951:1.117	COMP	0.6106 ± 0.2190	−0.661 ± 0.108	-	165.00 ± 15.60	-	212.02/238	91.457±21.0	1.1214E-05±2.2E-06
120129580	4	1.117:1.201	BAND	1.1070 ± 0.3340	−0.338 ± 0.137	−2.437 ± 0.171	205.90 ± 26.10	133.54 ± 17.90	248.51/237	142.72±20.0	2.6956E-05±3.0E-06
120129580	5	1.201:1.266	COMP	0.6069 ± 0.0972	−0.713 ± 0.066	-	404.90 ± 41.80	-	249.45/238	154.26±17.0	3.5193E-05±2.9E-06
120129580	6	1.266:1.321	COMP	0.6062 ± 0.0993	−0.632 ± 0.069	-	413.60 ± 42.50	-	196.5/238	148.59±17.0	3.6189E-05±3.0E-06
120129580	7	1.321:1.371	COMP	0.7190 ± 0.1020	−0.650 ± 0.064	-	461.20 ± 44.00	-	224.03/238	187.61±19.0	4.8325E-05±3.6E-06
120129580	8	1.371:1.414	COMP	0.9166 ± 0.1460	−0.553 ± 0.068	-	397.80 ± 36.00	-	221.48/238	211.02±23.0	5.2522E-05±4.1E-06
120129580	9	1.414:1.457	COMP	1.1840 ± 0.1810	−0.557 ± 0.069	-	358.10 ± 28.60	-	213.16/238	257.27±27.0	5.9353E-05±4.5E-06
120129580	10	1.457:1.504	COMP	1.4700 ± 0.2670	−0.517 ± 0.076	-	292.90 ± 23.10	-	183.34/238	275.02±32.0	5.5736E-05±4.7E-06
120129580	11	1.504:1.551	COMP	0.7755 ± 0.1230	−0.566 ± 0.069	-	413.50 ± 38.50	-	228.01/238	183.69±20.0	4.6572E-05±3.7E-06
120129580	12	1.551:1.595	COMP	0.8922 ± 0.1500	−0.464 ± 0.073	-	369.80 ± 31.40	-	246.45/238	187.67±21.0	4.6593E-05±3.9E-06
120129580	13	1.595:1.641	COMP	0.7989 ± 0.1290	−0.539 ± 0.071	-	397.00 ± 36.20	-	219.25/238	182.45±20.0	4.5716E-05±3.7E-06
120129580	14	1.641:1.690	COMP	1.3710 ± 0.2410	−0.553 ± 0.073	-	298.80 ± 23.50	-	200.0/238	266.73±31.0	5.3924E-05±4.6E-06
120129580	15	1.690:1.741	COMP	0.8032 ± 0.1230	−0.606 ± 0.068	-	391.50 ± 35.20	-	271.58/238	188.71±20.0	4.5021E-05±3.5E-06

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
120129580	16	1.741:1.793	COMP	0.8879 ± 0.1780	−0.514 ± 0.079	-	306.20 ± 27.20	-	185.39/238	170.61±22.0	3.5817E-05±3.5E-06
120129580	17	1.793:1.855	COMP	1.0330 ± 0.2500	−0.578 ± 0.087	-	231.50 ± 20.20	-	233.28/238	174.96±27.0	2.8724E-05±3.6E-06
120129580	18	1.855:1.929	COMP	0.7265 ± 0.1960	−0.577 ± 0.092	-	230.30 ± 22.10	-	217.66/238	122.58±21.0	2.0049E-05±2.8E-06
120129580	19	1.929:2.010	COMP	0.9580 ± 0.2660	−0.592 ± 0.092	-	204.60 ± 18.50	-	200.36/238	152.19±27.0	2.2560E-05±3.2E-06
120129580	20	2.010:2.112	COMP	1.2990 ± 0.4340	−0.530 ± 0.106	-	164.50 ± 13.70	-	205.07/238	166.63±34.0	2.1273E-05±3.7E-06
120129580	21	2.112:2.242	COMP	0.3958 ± 0.1230	−0.921 ± 0.091	-	205.80 ± 25.90	-	243.35/238	89.757±19.0	1.1657E-05±2.0E-06
120129580	22	2.242:2.444	SBPL	0.1066 ± 0.0271	−0.395 ± 0.335	−2.077 ± 0.129	101.50 ± 40.55	41.68 ± 11.00	280.39/237	46.567±11.0	6.0034E-06±1.2E-06
120129580	23	2.444:2.718	COMP	0.1605 ± 0.0486	−1.038 ± 0.086	-	252.20 ± 43.20	-	222.84/238	44.744±9.2	6.2268E-06±1.0E-06
120129580	24	2.718:2.865	COMP	0.2504 ± 0.0351	−0.663 ± 0.064	-	548.30 ± 63.90	-	210.6/238	71.016±6.9	2.0008E-05±1.4E-06
120129580	25	2.865:2.971	COMP	0.5548 ± 0.0880	−0.448 ± 0.073	-	371.60 ± 31.30	-	225.89/238	116.07±12.0	2.9169E-05±2.1E-06
120129580	26	2.971:3.076	COMP	0.5313 ± 0.0860	−0.589 ± 0.070	-	373.60 ± 34.70	-	214.76/238	120.48±13.0	2.8132E-05±2.1E-06
120129580	27	3.076:3.193	COMP	0.3947 ± 0.0566	−0.642 ± 0.068	-	439.20 ± 43.00	-	230.32/238	100.17±10.0	2.5188E-05±1.8E-06
120129580	28	3.193:3.316	COMP	0.4800 ± 0.0898	−0.543 ± 0.080	-	314.00 ± 28.90	-	228.98/238	95.548±11.0	2.0162E-05±1.8E-06
120129580	29	3.316:3.466	COMP	0.4916 ± 0.1150	−0.586 ± 0.087	-	253.70 ± 24.50	-	220.93/238	88.817±13.0	1.5597E-05±1.7E-06
120129580	30	3.466:3.869	COMP	0.1860 ± 0.0723	−1.097 ± 0.100	-	164.30 ± 24.20	-	230.7/238	47.988±13.0	5.0301E-06±1.1E-06
120129580	31	3.869:7.168	none	-	-	-	-	-	-	-	-
120204054	1	-5.120:24.750	COMP	0.0181 ± 0.0037	−0.922 ± 0.053	-	171.40 ± 10.40	-	672.98/479	3.8180±0.59	4.3764E-07±6.2E-08
120204054	2	24.750:26.292	COMP	0.2117 ± 0.0816	−0.633 ± 0.081	-	108.40 ± 4.89	-	558.32/479	23.149±7.1	2.0982E-06±6.3E-07
120204054	3	26.292:27.880	PL	0.0060 ± 0.0017	−1.600 ± 0.020	-	-	-	751.73/480	3.7000±1.1	5.0414E-07±1.4E-07
120204054	4	27.880:29.310	SBPL	0.0288 ± 0.0097	−0.682 ± 0.137	−2.639 ± 0.173	77.98 ± 13.21	60.45 ± 9.27	537.81/478	13.035±4.3	1.2805E-06±4.0E-07
120204054	5	29.310:30.319	BAND	0.1450 ± 0.0578	−0.496 ± 0.109	−2.902 ± 0.408	111.80 ± 7.84	93.24 ± 15.79	489.6/478	13.598±5.1	1.4665E-06±5.1E-07
120204054	6	30.319:31.170	PL	0.0067 ± 0.0023	−1.586 ± 0.021	-	-	-	805.93/480	4.1230±1.4	5.7448E-07±2.0E-07
120204054	7	31.170:31.825	COMP	0.1387 ± 0.0350	−0.802 ± 0.064	-	169.10 ± 10.70	-	499.94/479	25.012±4.8	2.9686E-06±5.3E-07
120204054	8	31.825:32.244	COMP	0.2445 ± 0.0502	−0.653 ± 0.064	-	191.30 ± 11.50	-	474.19/479	39.788±5.6	5.4612E-06±6.8E-07
120204054	9	32.244:32.594	COMP	0.2480 ± 0.0526	−0.571 ± 0.066	-	194.90 ± 11.20	-	493.57/479	37.445±5.6	5.3760E-06±7.2E-07
120204054	10	32.594:32.943	COMP	0.2344 ± 0.0472	−0.738 ± 0.061	-	203.10 ± 13.30	-	510.84/479	43.264±6.1	6.0061E-06±7.4E-07
120204054	11	32.943:33.311	COMP	0.2487 ± 0.0563	−0.535 ± 0.068	-	185.80 ± 10.30	-	567.78/479	34.998±5.7	4.9013E-06±7.2E-07
120204054	12	33.311:33.686	COMP	0.2466 ± 0.0559	−0.668 ± 0.066	-	178.90 ± 10.50	-	512.8/479	39.196±6.3	5.0865E-06±7.5E-07
120204054	13	33.686:34.094	COMP	0.2418 ± 0.0562	−0.624 ± 0.067	-	175.20 ± 9.96	-	535.98/479	36.103±6.0	4.6842E-06±7.1E-07
120204054	14	34.094:34.494	COMP	0.2010 ± 0.0438	−0.783 ± 0.064	-	186.40 ± 12.30	-	530.93/479	37.285±5.8	4.7762E-06±6.7E-07
120204054	15	34.494:34.948	COMP	0.1467 ± 0.0331	−0.755 ± 0.062	-	198.50 ± 13.50	-	468.08/479	27.238±4.6	3.6931E-06±5.6E-07
120204054	16	34.948:35.400	COMP	0.1814 ± 0.0353	−0.831 ± 0.059	-	211.30 ± 15.00	-	489.47/479	37.788±5.1	5.1859E-06±6.1E-07
120204054	17	35.400:35.878	COMP	0.1847 ± 0.0397	−0.730 ± 0.063	-	195.60 ± 12.80	-	510.83/479	33.135±5.0	4.4896E-06±6.0E-07
120204054	18	35.878:36.391	COMP	0.1647 ± 0.0316	−0.809 ± 0.058	-	217.60 ± 15.40	-	519.39/479	33.972±4.5	4.8075E-06±5.6E-07
120204054	19	36.391:36.914	COMP	0.1234 ± 0.0236	−0.882 ± 0.055	-	233.40 ± 18.30	-	502.18/479	28.392±3.9	4.0732E-06±5.0E-07
120204054	20	36.914:37.434	COMP	0.1329 ± 0.0249	−0.882 ± 0.056	-	240.40 ± 19.50	-	516.86/479	30.939±4.1	4.5287E-06±5.1E-07
120204054	21	37.434:37.972	COMP	0.1373 ± 0.0269	−0.905 ± 0.057	-	222.60 ± 17.70	-	567.11/479	31.724±4.4	4.3617E-06±5.2E-07
120204054	22	37.972:38.562	COMP	0.1234 ± 0.0238	−0.977 ± 0.055	-	229.20 ± 19.80	-	538.81/479	31.194±4.3	4.2194E-06±5.0E-07
120204054	23	38.562:39.127	COMP	0.1463 ± 0.0317	−0.925 ± 0.060	-	197.00 ± 15.30	-	493.44/479	32.845±5.1	4.1235E-06±5.6E-07
120204054	24	39.127:39.692	COMP	0.0981 ± 0.0211	−1.037 ± 0.057	-	226.50 ± 22.20	-	523.5/479	26.414±4.2	3.4391E-06±4.8E-07
120204054	25	39.692:40.229	COMP	0.0693 ± 0.0165	−1.121 ± 0.057	-	239.00 ± 27.10	-	473.32/479	20.907±3.9	2.6844E-06±4.5E-07
120204054	26	40.229:40.841	COMP	0.1131 ± 0.0269	−1.018 ± 0.062	-	191.60 ± 16.80	-	501.31/479	28.056±4.9	3.3244E-06±5.2E-07
120204054	27	40.841:41.521	COMP	0.1185 ± 0.0268	−1.108 ± 0.058	-	187.10 ± 17.00	-	518.25/479	32.582±5.3	3.6582E-06±5.2E-07
120204054	28	41.521:42.064	COMP	0.0710 ± 0.0148	−1.154 ± 0.050	-	264.30 ± 30.40	-	465.44/479	22.848±3.7	3.0393E-06±4.4E-07
120204054	29	42.064:42.483	COMP	0.1826 ± 0.0397	−1.025 ± 0.059	-	192.50 ± 16.20	-	522.82/479	45.708±7.0	5.4162E-06±7.2E-07
120204054	30	42.483:42.921	COMP	0.1496 ± 0.0322	−1.051 ± 0.057	-	202.70 ± 18.20	-	500.66/479	39.407±6.1	4.7629E-06±6.4E-07
120204054	31	42.921:43.379	COMP	0.1190 ± 0.0268	−1.145 ± 0.056	-	201.50 ± 19.80	-	472.86/479	35.078±5.9	4.0432E-06±6.0E-07
120204054	32	43.379:43.831	COMP	0.1650 ± 0.0361	−1.069 ± 0.057	-	196.80 ± 17.50	-	489.61/479	43.983±6.9	5.1783E-06±7.0E-07
120204054	33	43.831:44.239	COMP	0.0843 ± 0.0169	−1.267 ± 0.048	-	282.10 ± 38.50	-	541.93/479	31.338±4.9	3.9995E-06±5.5E-07
120204054	34	44.239:44.721	COMP	0.1113 ± 0.0215	−1.093 ± 0.051	-	242.30 ± 23.70	-	545.86/479	32.626±4.7	4.2895E-06±5.4E-07
120204054	35	44.721:45.197	COMP	0.1086 ± 0.0235	−1.139 ± 0.056	-	217.60 ± 22.50	-	545.14/479	32.525±5.3	3.9263E-06±5.6E-07
120204054	36	45.197:45.784	COMP	0.0896 ± 0.0239	−1.132 ± 0.059	-	178.70 ± 16.70	-	484.59/479	25.003±5.2	2.7060E-06±5.2E-07
120204054	37	45.784:46.518	COMP	0.0850 ± 0.0209	−1.169 ± 0.058	-	185.50 ± 18.60	-	548.58/479	25.188±4.7	2.7408E-06±4.6E-07

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
120204054	38	46.518:47.264	COMP	0.0997 ± 0.0282	−1.220 ± 0.063	-	149.70 ± 14.20	-	467.0/479	29.660±6.4	2.8111E-06±5.5E-07
120204054	39	47.264:48.128	COMP	0.0926 ± 0.0267	−1.272 ± 0.062	-	142.70 ± 13.70	-	435.4/479	29.279±6.4	2.6588E-06±5.3E-07
120204054	40	48.128:48.904	COMP	0.1114 ± 0.0313	−1.289 ± 0.062	-	136.30 ± 12.80	-	560.85/479	35.604±7.5	3.1425E-06±6.0E-07
120204054	41	48.904:49.693	COMP	0.0565 ± 0.0194	−1.416 ± 0.061	-	142.20 ± 17.10	-	516.77/479	22.074±6.3	1.9121E-06±5.1E-07
120204054	42	49.693:50.510	COMP	0.0588 ± 0.0201	−1.419 ± 0.061	-	135.20 ± 15.50	-	502.18/479	22.818±6.4	1.9311E-06±5.1E-07
120204054	43	50.510:51.325	COMP	0.0541 ± 0.0207	−1.539 ± 0.063	-	113.40 ± 13.80	-	535.69/479	24.488±7.8	1.8706E-06±5.7E-07
120204054	44	51.325:52.033	COMP	0.1402 ± 0.0556	−1.442 ± 0.070	-	86.17 ± 7.11	-	553.21/479	50.497±16.0	3.4743E-06±1.0E-06
120204054	45	52.033:52.791	COMP	0.0740 ± 0.0272	−1.558 ± 0.066	-	103.10 ± 12.30	-	561.73/479	33.908±9.9	2.4870E-06±6.7E-07
120204054	46	52.791:53.653	PL	0.0102 ± 0.0037	−1.850 ± 0.023	-	-	-	580.88/480	8.3396±3.1	7.6916E-07±2.8E-07
120204054	47	53.653:54.450	BAND	0.0524 ± 0.0209	−1.511 ± 0.117	−2.282 ± 0.202	73.81 ± 15.10	60.45 ± 18.57	447.04/478	20.852±7.5	1.5993E-06±5.3E-07
120204054	48	54.450:55.497	PL	0.0105 ± 0.0039	−1.927 ± 0.024	-	-	-	562.58/480	9.4565±3.6	7.8024E-07±2.9E-07
120204054	49	55.497:56.823	PL	0.0114 ± 0.0036	−1.945 ± 0.025	-	-	-	542.85/480	10.438±3.3	8.3888E-07±2.6E-07
120204054	50	56.823:58.727	none	-	-	-	-	-	-	-	-
120204054	51	58.727:60.943	none	-	-	-	-	-	-	-	-
120204054	52	60.943:65.566	none	-	-	-	-	-	-	-	-
120204054	53	65.566:82.944	none	-	-	-	-	-	-	-	-
120226871	1	-5.120:6.315	COMP	0.0092 ± 0.0017	−0.845 ± 0.066	-	440.20 ± 63.30	-	948.81/479	2.6461±0.35	5.7700E-07±6.6E-08
120226871	2	6.315:7.973	COMP	0.0350 ± 0.0066	−0.777 ± 0.066	-	356.10 ± 40.60	-	555.65/479	8.8034±1.2	1.7732E-06±2.0E-07
120226871	3	7.973:9.516	COMP	0.0409 ± 0.0067	−0.760 ± 0.062	-	381.70 ± 41.90	-	563.13/479	10.452±1.2	2.2241E-06±2.1E-07
120226871	4	9.516:10.871	COMP	0.0363 ± 0.0058	−0.848 ± 0.058	-	442.90 ± 55.70	-	546.28/479	10.423±1.2	2.2752E-06±2.2E-07
120226871	5	10.871:12.645	COMP	0.0389 ± 0.0076	−0.776 ± 0.065	-	307.90 ± 31.30	-	611.62/479	9.1540±1.3	1.6768E-06±2.0E-07
120226871	6	12.645:14.504	COMP	0.0427 ± 0.0085	−0.795 ± 0.066	-	283.10 ± 28.30	-	619.78/479	9.8214±1.4	1.6813E-06±2.0E-07
120226871	7	14.504:16.138	COMP	0.0434 ± 0.0073	−0.905 ± 0.057	-	367.50 ± 44.20	-	627.94/479	12.175±1.4	2.2940E-06±2.2E-07
120226871	8	16.138:17.727	COMP	0.0394 ± 0.0067	−0.829 ± 0.061	-	374.70 ± 43.20	-	600.93/479	10.513±1.3	2.1115E-06±2.1E-07
120226871	9	17.727:18.981	BAND	0.0742 ± 0.0150	−0.589 ± 0.090	−2.183 ± 0.162	257.10 ± 32.00	147.76 ± 21.12	592.19/478	13.943±1.6	2.8074E-06±2.7E-07
120226871	10	18.981:20.915	SBPL	0.0192 ± 0.0032	−0.592 ± 0.183	−1.743 ± 0.070	-	58.77 ± 13.10	594.56/478	6.9714±1.1	1.3403E-06±1.8E-07
120226871	11	20.915:24.363	SBPL	0.0119 ± 0.0022	−0.664 ± 0.182	−1.727 ± 0.074	-	58.38 ± 14.40	651.07/478	4.4776±0.75	8.4773E-07±1.3E-07
120226871	12	24.363:26.893	SBPL	0.0146 ± 0.0025	−0.556 ± 0.206	−1.704 ± 0.066	-	54.17 ± 12.70	654.76/478	5.3799±0.85	1.0508E-06±1.5E-07
120226871	13	26.893:30.008	BAND	0.0270 ± 0.0071	−0.683 ± 0.136	−1.705 ± 0.074	197.80 ± 42.50	80.55 ± 16.63	790.11/478	5.0236±0.77	1.0042E-06±1.4E-07
120226871	14	30.008:31.641	BAND	0.0369 ± 0.0071	−0.799 ± 0.081	−2.010 ± 0.133	355.40 ± 64.00	181.29 ± 33.81	582.89/478	9.5682±1.1	2.0495E-06±2.0E-07
120226871	15	31.641:34.131	BAND	0.0369 ± 0.0081	−0.858 ± 0.095	−1.945 ± 0.102	230.90 ± 40.60	113.16 ± 19.88	707.55/478	8.5162±1.2	1.4825E-06±1.8E-07
120226871	16	34.131:36.820	SBPL	0.0168 ± 0.0024	−1.030 ± 0.058	−1.946 ± 0.100	546.42 ± 205.86	183.70 ± 39.60	706.97/478	6.4954±0.82	1.3280E-06±1.5E-07
120226871	17	36.820:46.150	PL	0.0030 ± 0.0004	−1.414 ± 0.021	-	-	-	1346.3/480	1.6244±0.25	2.9927E-07±4.0E-08
120226871	18	46.150:54.741	PL	0.0032 ± 0.0005	−1.430 ± 0.022	-	-	-	1151.2/480	1.7192±0.27	3.0880E-07±4.4E-08
120226871	19	54.741:78.848	PL	0.0020 ± 0.0003	−1.433 ± 0.026	-	-	-	2359.7/480	1.0611±0.18	1.8955E-07±2.8E-08
120323507	1	-0.064:0.018	SBPL	0.2631 ± 0.0382	0.042 ± 0.282	−1.849 ± 0.041	-	46.49 ± 6.95	362.47/359	87.252±12.0	1.6488E-05±1.9E-06
120323507	2	0.018:0.034	SBPL	1.5490 ± 0.3130	−0.278 ± 0.219	−2.441 ± 0.120	77.30 ± 13.03	48.01 ± 7.37	298.79/359	661.78±1.2E+02	7.2676E-05±1.2E-05
120323507	3	0.034:0.050	SBPL	1.4050 ± 0.3290	−0.297 ± 0.247	−2.612 ± 0.134	60.86 ± 10.12	42.82 ± 6.70	287.33/359	740.08±1.7E+02	6.7080E-05±1.4E-05
120323507	4	0.050:0.067	SBPL	1.4650 ± 0.2830	−0.514 ± 0.272	−2.393 ± 0.104	57.76 ± 11.47	36.57 ± 6.85	322.02/359	881.88±1.7E+02	7.8715E-05±1.3E-05
120323507	5	0.067:0.081	COMP	2.4220 ± 0.4740	−1.442 ± 0.053	-	206.70 ± 24.40	-	406.74/360	1057.3±1.6E+02	0.00010630±1.4E-05
120323507	6	0.081:0.097	COMP	1.0710 ± 0.1630	−1.598 ± 0.040	-	576.10 ± 165.00	-	380.83/360	628.82±86.0	7.3036E-05±8.4E-06
120323507	7	0.097:0.116	COMP	1.4290 ± 0.2110	−1.476 ± 0.044	-	442.50 ± 90.20	-	348.24/360	717.30±88.0	8.9933E-05±8.8E-06
120323507	8	0.116:0.143	COMP	0.9016 ± 0.1720	−1.560 ± 0.048	-	312.70 ± 71.40	-	289.24/360	484.54±74.0	5.1620E-05±6.4E-06
120323507	9	0.143:0.193	COMP	0.5497 ± 0.1620	−1.519 ± 0.066	-	146.80 ± 22.70	-	297.02/360	252.60±56.0	2.1470E-05±4.1E-06
120323507	10	0.193:0.281	COMP	0.2799 ± 0.1040	−1.496 ± 0.071	-	112.00 ± 12.30	-	319.93/360	117.66±36.0	9.0075E-06±2.6E-06
120323507	11	0.281:0.391	PL	0.0612 ± 0.0132	−2.036 ± 0.033	-	-	-	438.33/361	63.570±16.0	4.5174E-06±9.8E-07
120323507	12	0.391:0.896	none	-	-	-	-	-	-	-	-
120328268	1	-2.048:4.485	BAND	0.0229 ± 0.0039	−0.609 ± 0.079	−1.960 ± 0.104	355.90 ± 50.70	175.79 ± 25.56	544.41/476	5.2467±0.52	1.2874E-06±1.1E-07
120328268	2	4.485:5.252	SBPL	0.0918 ± 0.0081	−0.645 ± 0.056	−2.095 ± 0.089	415.83 ± 136.44	175.70 ± 20.60	583.14/476	29.054±2.1	7.2969E-06±4.3E-07
120328268	3	5.252:5.742	SBPL	0.1168 ± 0.0106	−0.531 ± 0.065	−2.028 ± 0.079	436.22 ± 143.63	152.80 ± 17.30	495.46/476	35.181±2.7	9.0816E-06±5.7E-07
120328268	4	5.742:6.213	BAND	0.1945 ± 0.0309	−0.444 ± 0.076	−2.041 ± 0.088	284.60 ± 28.90	150.03 ± 15.31	547.66/476	35.170±3.0	8.3368E-06±5.8E-07
120328268	5	6.213:6.581	SBPL	0.1505 ± 0.0171	−0.631 ± 0.070	−2.249 ± 0.129	232.80 ± 54.24	127.50 ± 16.30	583.67/476	44.659±4.6	8.8083E-06±7.6E-07
120328268	6	6.581:7.018	BAND	0.3750 ± 0.0737	−0.348 ± 0.098	−2.082 ± 0.094	173.00 ± 15.80	94.69 ± 8.90	553.45/476	43.631±4.6	8.0938E-06±7.2E-07

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
120328268	7	7.018:7.472	SBPL	0.1104 ± 0.0147	−0.576 ± 0.086	−2.183 ± 0.124	210.37 ± 70.75	101.50 ± 13.70	450.08/476	32.966±4.0	6.0869E-06±6.4E-07
120328268	8	7.472:7.885	BAND	0.3349 ± 0.0679	−0.477 ± 0.089	−2.301 ± 0.155	172.00 ± 15.10	106.41 ± 11.35	529.5/476	43.539±5.6	7.1277E-06±7.7E-07
120328268	9	7.885:8.508	BAND	0.2368 ± 0.0502	−0.536 ± 0.093	−2.193 ± 0.137	157.00 ± 15.00	92.37 ± 10.35	488.71/476	31.044±4.4	4.8559E-06±5.9E-07
120328268	10	8.508:9.381	SBPL	0.0532 ± 0.0084	−0.683 ± 0.147	−1.905 ± 0.072	344.99 ± 119.52	51.85 ± 9.28	452.7/476	21.773±3.2	3.3102E-06±4.2E-07
120328268	11	9.381:10.363	BAND	0.1169 ± 0.0327	−0.640 ± 0.121	−1.962 ± 0.096	123.40 ± 16.20	63.48 ± 8.33	511.13/476	15.240±2.9	2.2301E-06±3.8E-07
120328268	12	10.363:11.725	COMP	0.0948 ± 0.0223	−0.862 ± 0.061	-	187.00 ± 14.80	-	532.02/477	19.272±3.3	2.4026E-06±3.7E-07
120328268	13	11.725:13.242	COMP	0.0877 ± 0.0221	−0.812 ± 0.064	-	180.70 ± 13.60	-	616.04/477	16.534±3.1	2.0512E-06±3.6E-07
120328268	14	13.242:14.882	COMP	0.1285 ± 0.0317	−0.795 ± 0.065	-	161.80 ± 11.10	-	509.34/477	22.417±3.9	2.5884E-06±4.1E-07
120328268	15	14.882:17.500	BAND	0.0674 ± 0.0178	−0.815 ± 0.115	−1.970 ± 0.111	132.60 ± 20.50	68.37 ± 10.82	591.3/476	11.502±2.0	1.6100E-06±2.4E-07
120328268	16	17.500:18.635	COMP	0.0532 ± 0.0080	−0.962 ± 0.048	-	422.80 ± 54.40	-	579.24/477	16.307±1.8	3.1818E-06±3.0E-07
120328268	17	18.635:19.381	SBPL	0.0713 ± 0.0076	−0.688 ± 0.079	−1.854 ± 0.067	-	102.30 ± 14.50	535.94/476	23.234±2.3	4.9800E-06±4.2E-07
120328268	18	19.381:20.035	BAND	0.1674 ± 0.0334	−0.556 ± 0.096	−1.926 ± 0.084	184.40 ± 21.80	91.20 ± 10.71	479.63/476	25.555±3.0	4.7547E-06±4.8E-07
120328268	19	20.035:20.474	COMP	0.1865 ± 0.0317	−0.607 ± 0.058	-	258.30 ± 17.90	-	490.04/477	34.710±4.1	6.1174E-06±6.2E-07
120328268	20	20.474:20.983	COMP	0.2921 ± 0.0553	−0.616 ± 0.061	-	198.40 ± 12.00	-	493.01/477	46.721±5.9	6.6944E-06±7.2E-07
120328268	21	20.983:21.593	COMP	0.1842 ± 0.0382	−0.769 ± 0.060	-	196.00 ± 13.70	-	589.67/477	34.474±5.1	4.6111E-06±6.0E-07
120328268	22	21.593:22.445	BAND	0.1830 ± 0.0481	−0.506 ± 0.109	−2.239 ± 0.159	129.80 ± 12.50	79.03 ± 9.10	583.39/476	20.161±4.0	2.8173E-06±4.9E-07
120328268	23	22.445:23.266	SBPL	0.0455 ± 0.0091	−0.721 ± 0.136	−2.035 ± 0.099	148.82 ± 52.62	58.03 ± 10.60	529.49/476	18.361±3.5	2.5950E-06±4.4E-07
120328268	24	23.266:25.106	COMP	0.1089 ± 0.0321	−1.044 ± 0.065	-	134.60 ± 10.70	-	525.26/477	24.230±5.3	2.2879E-06±4.6E-07
120328268	25	25.106:27.613	COMP	0.0851 ± 0.0289	−1.023 ± 0.069	-	126.40 ± 9.77	-	628.7/477	17.890±4.7	1.6348E-06±4.1E-07
120328268	26	27.613:30.412	SBPL	0.0140 ± 0.0044	−0.652 ± 0.255	−2.076 ± 0.081	79.94 ± 29.60	31.30 ± 6.50	579.08/476	8.2045±2.6	8.5382E-07±2.6E-07
120328268	27	30.412:32.550	COMP	0.1557 ± 0.0583	−0.842 ± 0.076	-	110.80 ± 6.82	-	484.65/477	23.467±6.8	2.0627E-06±5.7E-07
120328268	28	32.550:42.320	PL	0.0062 ± 0.0013	−1.742 ± 0.026	-	-	-	850.47/478	4.4716±0.96	4.8649E-07±9.8E-08
120328268	29	42.320:56.320	none	-	-	-	-	-	-	-	-
120426090	1	-2.048:0.501	COMP	0.0699 ± 0.0200	−0.579 ± 0.093	-	195.00 ± 15.50	-	368.06/357	10.638±2.1	1.5245E-06±2.7E-07
120426090	2	0.501:0.638	SBPL	0.2352 ± 0.0457	−0.605 ± 0.104	−2.454 ± 0.189	159.36 ± 33.08	106.20 ± 17.40	368.34/356	69.506±12.0	1.1234E-05±1.8E-06
120426090	3	0.638:0.800	COMP	0.4610 ± 0.1450	−0.547 ± 0.081	-	159.70 ± 9.40	-	342.43/357	59.189±15.0	7.3349E-06±1.7E-06
120426090	4	0.800:0.975	COMP	0.5518 ± 0.1770	−0.478 ± 0.082	-	150.10 ± 7.77	-	366.81/357	62.344±16.0	7.5109E-06±1.8E-06
120426090	5	0.975:1.113	SBPL	0.1378 ± 0.0345	−0.484 ± 0.164	−2.271 ± 0.136	120.40 ± 29.45	65.54 ± 11.40	373.06/356	47.844±11.0	6.7033E-06±1.4E-06
120426090	6	1.113:1.236	COMP	0.7735 ± 0.2130	−0.633 ± 0.078	-	160.30 ± 9.53	-	378.42/357	110.16±22.0	1.3327E-05±2.5E-06
120426090	7	1.236:1.366	COMP	1.0080 ± 0.3020	−0.519 ± 0.084	-	148.80 ± 8.45	-	285.01/357	118.92±25.0	1.4062E-05±2.8E-06
120426090	8	1.366:1.496	COMP	0.6545 ± 0.2000	−0.614 ± 0.081	-	161.00 ± 10.10	-	328.93/357	91.338±21.0	1.1150E-05±2.3E-06
120426090	9	1.496:1.636	COMP	0.9192 ± 0.3620	−0.506 ± 0.089	-	123.70 ± 6.02	-	344.78/357	92.797±29.0	9.5469E-06±2.9E-06
120426090	10	1.636:1.796	COMP	0.6313 ± 0.2440	−0.560 ± 0.089	-	133.40 ± 7.33	-	371.75/357	72.395±22.0	7.7838E-06±2.3E-06
120426090	11	1.796:1.952	PL	0.0195 ± 0.0067	−1.557 ± 0.027	-	-	-	583.39/358	11.658±4.1	1.7033E-06±5.8E-07
120426090	12	1.952:2.124	SBPL	0.0974 ± 0.0369	−0.566 ± 0.175	−2.548 ± 0.170	83.34 ± 16.13	59.31 ± 10.40	332.68/356	40.739±15.0	4.3568E-06±1.5E-06
120426090	13	2.124:2.339	none	-	-	-	-	-	-	-	-
120426090	14	2.339:2.703	PL	0.0238 ± 0.0081	−1.870 ± 0.031	-	-	-	601.74/358	19.885±7.0	1.7825E-06±6.1E-07
120426090	15	2.703:4.233	none	-	-	-	-	-	-	-	-
120426090	16	4.233:10.240	PL	0.0076 ± 0.0028	−2.054 ± 0.088	-	-	-	416.98/358	8.0932±3.5	5.6293E-07±2.1E-07
120526303	1	-1.024:6.385	COMP	0.0280 ± 0.0026	−0.578 ± 0.085	-	530.30 ± 42.80	-	270.93/240	7.5835±0.59	2.2218E-06±9.7E-08
120526303	2	6.385:11.512	COMP	0.0248 ± 0.0020	−0.847 ± 0.064	-	986.90 ± 112.00	-	284.15/240	8.9648±0.70	2.7318E-06±1.2E-07
120526303	3	11.512:16.215	COMP	0.0257 ± 0.0019	−0.603 ± 0.071	-	969.40 ± 79.50	-	271.39/240	8.9792±0.62	3.3976E-06±1.2E-07
120526303	4	16.215:20.014	COMP	0.0283 ± 0.0022	−0.919 ± 0.055	-	1313.00 ± 146.00	-	260.07/240	10.978±0.87	3.3377E-06±1.4E-07
120526303	5	20.014:25.264	COMP	0.0260 ± 0.0021	−0.749 ± 0.071	-	857.90 ± 86.50	-	212.97/240	8.8708±0.68	2.8332E-06±1.2E-07
120526303	6	25.264:29.294	COMP	0.0297 ± 0.0023	−0.766 ± 0.065	-	989.40 ± 96.00	-	276.86/240	10.560±0.79	3.4839E-06±1.4E-07
120526303	7	29.294:33.708	COMP	0.0306 ± 0.0026	−0.710 ± 0.074	-	752.20 ± 71.30	-	290.57/240	9.9273±0.77	3.1201E-06±1.3E-07
120526303	8	33.708:37.347	COMP	0.0317 ± 0.0031	−1.022 ± 0.063	-	801.10 ± 120.00	-	276.97/240	11.762±1.0	2.8101E-06±1.5E-07
120526303	9	37.347:41.384	COMP	0.0312 ± 0.0032	−0.863 ± 0.074	-	641.30 ± 77.90	-	251.77/240	10.148±0.90	2.6126E-06±1.4E-07
120526303	10	41.384:45.460	COMP	0.0419 ± 0.0054	−0.760 ± 0.084	-	408.40 ± 41.00	-	232.58/240	11.031±1.0	2.4452E-06±1.5E-07
120526303	11	45.460:66.560	PL	0.0046 ± 0.0009	−1.752 ± 0.059	-	-	-	354.88/241	3.3330±0.83	3.5726E-07±6.8E-08
120624933	1	-270.340:-245.764	COMP	0.0049 ± 0.0004	−1.030 ± 0.024	-	3320.00 ± 490.00	-	766.42/478	2.1178±0.15	6.4160E-07±4.1E-08
120624933	2	-245.764:-229.380	COMP	0.0108 ± 0.0014	−0.981 ± 0.041	-	514.00 ± 59.40	-	692.97/478	3.5540±0.35	7.4840E-07±6.6E-08
120624933	3	-229.380:-221.187	COMP	0.0135 ± 0.0024	−0.949 ± 0.057	-	415.90 ± 55.50	-	553.06/478	4.0675±0.56	7.9379E-07±9.8E-08

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Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
120624933	4	-221.187:-167.939	PL	0.0015 ± 0.0002	−1.372 ± 0.019	-	-	-	1342.3/479	0.77190±0.11	1.5194E-07±1.9E-08
120624933	5	-167.939:-114.690	COMP	0.0040 ± 0.0006	−0.962 ± 0.046	-	622.00 ± 90.20	-	1643.9/478	1.3500±0.16	3.1339E-07±3.3E-08
120624933	6	-114.690:-106.498	COMP	0.0135 ± 0.0022	−0.891 ± 0.058	-	454.30 ± 59.20	-	672.88/478	4.0092±0.50	8.5721E-07±9.3E-08
120624933	7	-106.498:-102.402	COMP	0.0194 ± 0.0026	−0.817 ± 0.051	-	542.10 ± 62.70	-	590.37/478	5.8720±0.60	1.4569E-06±1.3E-07
120624933	8	-102.402:-98.306	COMP	0.0253 ± 0.0034	−0.734 ± 0.052	-	441.50 ± 40.30	-	664.01/478	6.7591±0.66	1.5976E-06±1.3E-07
120624933	9	-98.306:-94.209	COMP	0.0269 ± 0.0028	−0.721 ± 0.046	-	564.60 ± 51.20	-	561.26/478	7.9057±0.59	2.1606E-06±1.3E-07
120624933	10	-94.209:-90.113	COMP	0.0257 ± 0.0029	−0.789 ± 0.047	-	544.50 ± 55.30	-	581.57/478	7.6709±0.63	1.9504E-06±1.3E-07
120624933	11	-90.113:-86.017	COMP	0.0278 ± 0.0025	−0.663 ± 0.043	-	631.40 ± 52.50	-	552.56/478	8.3495±0.53	2.5219E-06±1.3E-07
120624933	12	-86.017:-81.921	COMP	0.0267 ± 0.0018	−0.734 ± 0.034	-	958.60 ± 82.10	-	510.97/478	9.3718±0.49	3.1530E-06±1.3E-07
120624933	13	-81.921:-77.825	COMP	0.0252 ± 0.0019	−0.606 ± 0.041	-	818.50 ± 66.10	-	578.81/478	8.2997±0.45	2.9420E-06±1.3E-07
120624933	14	-77.825:-73.729	COMP	0.0175 ± 0.0016	−0.766 ± 0.044	-	988.50 ± 122.00	-	528.81/478	6.2424±0.45	2.0605E-06±1.2E-07
120624933	15	-73.729:-65.537	COMP	0.0137 ± 0.0014	−0.891 ± 0.041	-	799.40 ± 103.00	-	687.66/478	4.8025±0.38	1.3101E-06±8.7E-08
120624933	16	-65.537:-40.961	PL	0.0009 ± 0.0003	−1.364 ± 0.029	-	-	-	947.67/479	0.48755±0.14	9.7197E-08±2.5E-08
120624933	17	-4.096:9.216	BAND	0.0115 ± 0.0013	−0.877 ± 0.052	−1.937 ± 0.110	681.60 ± 120.00	323.64 ± 59.39	572.89/477	3.8515±0.29	1.0102E-06±6.7E-08
120624933	18	9.216:12.288	COMP	0.0328 ± 0.0029	−0.791 ± 0.037	-	675.20 ± 61.00	-	512.31/478	10.549±0.69	2.9565E-06±1.6E-07
120624933	19	12.288:15.360	COMP	0.0366 ± 0.0040	−1.000 ± 0.036	-	517.90 ± 54.20	-	498.85/478	12.202±1.0	2.5347E-06±1.8E-07
120624933	20	15.360:48.129	COMP	0.0054 ± 0.0012	−0.999 ± 0.071	-	420.30 ± 75.60	-	716.52/478	1.6965±0.28	3.1993E-07±4.6E-08
120707800	1	-3.072:14.407	BAND	0.0658 ± 0.0132	−0.710 ± 0.112	−2.100 ± 0.070	139.60 ± 14.70	79.08 ± 8.18	603.08/357	9.9641±0.79	1.4064E-06±8.8E-08
120707800	2	14.407:20.869	COMP	0.0549 ± 0.0099	−1.398 ± 0.059	-	167.60 ± 16.40	-	523.71/358	21.655±2.6	2.0328E-06±2.0E-07
120707800	3	20.869:23.861	COMP	0.0588 ± 0.0109	−1.271 ± 0.067	-	207.70 ± 22.30	-	447.79/358	20.510±2.6	2.2571E-06±2.3E-07
120707800	4	23.861:26.476	COMP	0.0676 ± 0.0124	−1.325 ± 0.065	-	202.30 ± 22.10	-	399.47/358	25.113±3.1	2.6560E-06±2.7E-07
120707800	5	26.476:27.245	BAND	0.2871 ± 0.0615	−0.782 ± 0.112	−2.400 ± 0.118	209.30 ± 25.10	142.64 ± 18.31	386.21/357	57.423±5.2	8.9138E-06±6.3E-07
120707800	6	27.245:28.225	COMP	0.1584 ± 0.0238	−1.052 ± 0.065	-	237.00 ± 18.70	-	408.1/358	44.056±4.5	5.8465E-06±4.6E-07
120707800	7	28.225:29.105	COMP	0.1970 ± 0.0370	−0.888 ± 0.078	-	196.20 ± 13.90	-	398.78/358	42.266±5.0	5.3776E-06±5.2E-07
120707800	8	29.105:29.682	COMP	0.2502 ± 0.0360	−1.102 ± 0.062	-	239.00 ± 18.90	-	395.41/358	73.853±7.4	9.5823E-06±7.2E-07
120707800	9	29.682:30.360	COMP	0.2656 ± 0.0394	−1.061 ± 0.064	-	215.90 ± 15.60	-	447.01/358	72.374±7.2	9.0430E-06±6.8E-07
120707800	10	30.360:31.395	SBPL	0.1128 ± 0.0144	−1.009 ± 0.164	−2.273 ± 0.112	121.35 ± 30.90	76.71 ± 17.60	412.71/357	48.927±5.8	5.8138E-06±5.4E-07
120707800	11	31.395:34.057	COMP	0.1062 ± 0.0215	−1.245 ± 0.073	-	158.10 ± 13.10	-	431.16/358	33.258±4.3	3.2181E-06±3.4E-07
120707800	12	34.057:63.488	COMP	0.0169 ± 0.0036	−1.756 ± 0.061	-	105.70 ± 14.80	-	936.22/358	10.869±1.6	7.9203E-07±1.0E-07
120711115	1	-2.048:5.120	COMP	0.0070 ± 0.0022	−0.892 ± 0.166	-	563.00 ± 203.00	-	401.33/359	2.2298±0.52	5.2853E-07±9.4E-08
120711115	2	56.320:65.742	COMP	0.0106 ± 0.0009	−0.934 ± 0.045	-	1820.00 ± 250.00	-	500.01/359	4.3283±0.35	1.3751E-06±7.9E-08
120711115	3	65.742:67.273	COMP	0.0420 ± 0.0031	−0.886 ± 0.042	-	1335.00 ± 160.00	-	386.38/359	16.235±1.1	5.1358E-06±2.5E-07
120711115	4	67.273:68.382	COMP	0.0421 ± 0.0031	−0.931 ± 0.036	-	1785.00 ± 209.00	-	356.88/359	17.096±1.2	5.4351E-06±2.9E-07
120711115	5	68.382:69.465	COMP	0.0552 ± 0.0039	−0.929 ± 0.037	-	1479.00 ± 168.00	-	376.93/359	21.841±1.4	6.7298E-06±3.2E-07
120711115	6	69.465:70.467	COMP	0.0551 ± 0.0045	−0.894 ± 0.045	-	1148.00 ± 146.00	-	406.8/359	20.783±1.5	6.2874E-06±3.3E-07
120711115	7	70.467:71.487	COMP	0.0516 ± 0.0035	−0.968 ± 0.034	-	1850.00 ± 191.00	-	378.32/359	21.183±1.4	6.4807E-06±3.1E-07
120711115	8	71.487:72.842	COMP	0.0488 ± 0.0039	−1.035 ± 0.039	-	1289.00 ± 190.00	-	379.96/359	19.591±1.4	5.1945E-06±2.8E-07
120711115	9	72.842:74.417	COMP	0.0459 ± 0.0045	−0.926 ± 0.051	-	785.90 ± 108.00	-	395.56/359	16.214±1.3	4.2473E-06±2.5E-07
120711115	10	74.417:75.673	COMP	0.0594 ± 0.0059	−1.003 ± 0.049	-	738.30 ± 105.00	-	408.4/359	21.472±1.7	5.0957E-06±3.0E-07
120711115	11	75.673:79.045	COMP	0.0252 ± 0.0030	−1.101 ± 0.053	-	834.80 ± 172.00	-	445.19/359	9.8485±0.94	2.1838E-06±1.6E-07
120711115	12	79.045:81.807	COMP	0.0246 ± 0.0020	−1.076 ± 0.037	-	1723.00 ± 269.00	-	408.16/359	10.316±0.83	2.7362E-06±1.7E-07
120711115	13	81.807:85.349	COMP	0.0263 ± 0.0030	−0.994 ± 0.056	-	728.90 ± 121.00	-	410.2/359	9.4315±0.85	2.2488E-06±1.5E-07
120711115	14	85.349:86.744	COMP	0.0423 ± 0.0042	−0.882 ± 0.052	-	885.30 ± 126.00	-	392.54/359	15.082±1.2	4.2901E-06±2.6E-07
120711115	15	86.744:88.189	COMP	0.0427 ± 0.0036	−1.030 ± 0.041	-	1290.00 ± 202.00	-	407.98/359	17.087±1.3	4.5599E-06±2.6E-07
120711115	16	88.189:89.518	COMP	0.0430 ± 0.0033	−0.917 ± 0.040	-	1344.00 ± 172.00	-	336.1/359	16.746±1.2	5.1260E-06±2.7E-07
120711115	17	89.518:90.699	COMP	0.0467 ± 0.0045	−0.871 ± 0.051	-	921.80 ± 128.00	-	357.75/359	16.757±1.3	4.8830E-06±2.9E-07
120711115	18	90.699:91.820	COMP	0.0586 ± 0.0057	−0.942 ± 0.049	-	795.70 ± 108.00	-	370.95/359	20.885±1.6	5.4063E-06±3.1E-07
120711115	19	91.820:92.936	COMP	0.0475 ± 0.0036	−0.966 ± 0.038	-	1450.00 ± 193.00	-	339.61/359	18.907±1.3	5.5629E-06±3.0E-07
120711115	20	92.936:93.925	COMP	0.0541 ± 0.0039	−1.063 ± 0.033	-	1808.00 ± 221.00	-	354.34/359	22.716±1.6	6.1680E-06±3.2E-07
120711115	21	93.925:94.917	COMP	0.0552 ± 0.0037	−0.980 ± 0.034	-	1821.00 ± 183.00	-	376.55/359	22.678±1.5	6.8236E-06±3.2E-07
120711115	22	94.917:95.583	SBPL	0.0584 ± 0.0043	−0.807 ± 0.047	−2.059 ± 0.077	1394.81 ± 506.62	552.90 ± 92.00	370.03/358	24.877±1.6	8.9817E-06±4.1E-07
120711115	23	95.583:96.390	BAND	0.0640 ± 0.0052	−0.938 ± 0.046	−2.272 ± 0.147	1445.00 ± 266.00	903.80 ± 175.18	385.54/358	25.291±1.8	7.6776E-06±3.9E-07
120711115	24	96.390:97.631	COMP	0.0488 ± 0.0034	−0.896 ± 0.038	-	1490.00 ± 163.00	-	404.5/359	19.228±1.3	6.1521E-06±2.9E-07

Continued on next page

Table A.1 – continued from previous page

GRB name	spectrum	T_{start}:T_{stop} (s)	BEST model	A (ph s^{-1} cm^{-2} keV^{-1})	α	β	E_p (keV)	E_b (keV)	CSTAT/dof	photon flux (ph s^{-1} cm^{-2})	energy flux (erg s^{-1} cm^{-2})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
120711115	25	97.631:98.719	COMP	0.0486 ± 0.0034	−0.910 ± 0.036	-	1713.00 ± 180.00	-	362.07/359	19.565±1.3	6.3268E-06±3.0E-07
120711115	26	98.719:99.870	COMP	0.0449 ± 0.0031	−1.004 ± 0.033	-	2122.00 ± 217.00	-	355.42/359	18.796±1.3	5.6107E-06±2.8E-07
120711115	27	99.870:101.288	COMP	0.0394 ± 0.0028	−0.962 ± 0.035	-	1805.00 ± 195.00	-	352.56/359	16.110±1.1	4.9460E-06±2.5E-07
120711115	28	101.288:102.122	BAND	0.0618 ± 0.0048	−0.807 ± 0.049	−2.414 ± 0.163	1263.00 ± 183.00	849.68 ± 137.94	366.67/358	23.403±1.5	7.9374E-06±3.7E-07
120711115	29	102.122:103.323	COMP	0.0469 ± 0.0041	−0.965 ± 0.045	-	1117.00 ± 167.00	-	354.33/359	17.990±1.4	5.0084E-06±2.9E-07
120711115	30	103.323:104.716	COMP	0.0488 ± 0.0053	−1.023 ± 0.051	-	767.30 ± 123.00	-	415.34/359	17.988±1.6	4.2310E-06±2.8E-07
120711115	31	104.716:109.230	COMP	0.0205 ± 0.0037	−1.275 ± 0.061	-	535.10 ± 139.00	-	471.01/359	8.5653±1.2	1.3835E-06±1.5E-07
120711115	32	109.230:119.808	PL	0.0053 ± 0.0013	−1.681 ± 0.060	-	-	-	518.13/360	3.6005±1.0	4.2991E-07±9.2E-08

Appendix B: $E_{\rm p}$ evolutionary trends

Table B.1. $E_{\rm p}$ evolutionary trends. Column (1) lists the GRB names. Column (2) lists the numbers of spectra with $E_{\rm p}$. Columns (3), (7), and (11) list the Spearman's Rank Correlation Coefficients between $E_{\rm p}$ and the photon flux and the 90%, 95%, and 99% confidence intervals, respectively. Columns (4), (8), and (12) list the Spearman's Rank Correlation Coefficients between $E_{\rm p}$ and the energy flux and the 90%, 95%, and 99% confidence intervals, respectively. Columns (5), (9), and (13) list the Spearman's Rank Correlation Coefficients between $E_{\rm p}$ and the time and the 90%, 95%, and 99% confidence intervals, respectively. Columns (6), (10), and (14) list the trends as determined by the computer for the 90%, 95%, and 99% confidence intervals, respectively. Column (15) lists the trends as determined by human eyes.

GRB name	N	$\rho_{\rm ph}$(90%)	$\rho_{\rm en}$(90%)	$\rho_{\rm t}$(90%)	trend(90%)	$\rho_{\rm ph}$(95%)	$\rho_{\rm en}$(95%)	$\rho_{\rm t}$(95%)	trend(95%)	$\rho_{\rm ph}$(99%)	$\rho_{\rm en}$(99%)	$\rho_{\rm t}$(99%)	trend(99%)	trend(by eyes)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
080817161	15	$0.354^{+0.335}_{-0.459}$	$0.546^{+0.250}_{-0.409}$	$-0.700^{+0.327}_{-0.172}$	undeter.	$0.354^{+0.379}_{-0.547}$	$0.546^{+0.281}_{-0.499}$	$-0.700^{+0.407}_{-0.192}$	undeter.	$0.354^{+0.451}_{-0.711}$	$0.546^{+0.329}_{-0.676}$	$-0.700^{+0.577}_{-0.223}$	h.t.s.	h.t.s.+in.track.
080825593	12	$0.322^{+0.386}_{-0.533}$	$0.538^{+0.279}_{-0.485}$	$-0.832^{+0.263}_{-0.108}$	undeter.	$0.322^{+0.434}_{-0.631}$	$0.538^{+0.311}_{-0.590}$	$-0.832^{+0.338}_{-0.119}$	h.t.s.	$0.322^{+0.509}_{-0.803}$	$0.538^{+0.359}_{-0.789}$	$-0.832^{+0.508}_{-0.135}$	h.t.s.	h.t.s.
080916009	21	$0.168^{+0.338}_{-0.383}$	$0.249^{+0.317}_{-0.382}$	$-0.288^{+0.379}_{-0.306}$	undeter.	$0.168^{+0.391}_{-0.452}$	$0.249^{+0.366}_{-0.454}$	$-0.288^{+0.452}_{-0.352}$	undeter.	$0.168^{+0.483}_{-0.579}$	$0.249^{+0.448}_{-0.588}$	$-0.288^{+0.589}_{-0.430}$	undeter.	undeter.
081009140	0	-	-	-	-	-	-	-	-	-	-	-	-	-
081124060	0	-	-	-	-	-	-	-	-	-	-	-	-	-
081125496	4	-	-	-	-	-	-	-	-	-	-	-	-	-
081207680	9	$0.683^{+0.223}_{-0.521}$	$0.717^{+0.201}_{-0.491}$	$0.367^{+0.418}_{-0.646}$	in.track.	$0.683^{+0.244}_{-0.648}$	$0.717^{+0.219}_{-0.616}$	$0.367^{+0.462}_{-0.760}$	in.track.	$0.683^{+0.272}_{-0.896}$	$0.717^{+0.244}_{-0.866}$	$0.367^{+0.526}_{-0.949}$	undeter.	in.track.
081215784	16	$0.453^{+0.284}_{-0.421}$	$0.538^{+0.247}_{-0.394}$	$-0.650^{+0.341}_{-0.193}$	undeter.	$0.453^{+0.322}_{-0.508}$	$0.538^{+0.278}_{-0.480}$	$-0.650^{+0.422}_{-0.217}$	undeter.	$0.453^{+0.381}_{-0.675}$	$0.538^{+0.328}_{-0.650}$	$-0.650^{+0.589}_{-0.253}$	h.t.s.	h.t.s.+in.track.
081221681	0	-	-	-	-	-	-	-	-	-	-	-	-	-
081224887	11	$0.455^{+0.336}_{-0.545}$	$0.873^{+0.086}_{-0.230}$	$-0.991^{+0.020}_{-0.006}$	undeter.	$0.455^{+0.374}_{-0.654}$	$0.873^{+0.094}_{-0.300}$	$-0.991^{+0.027}_{-0.007}$	undeter.	$0.455^{+0.431}_{-0.851}$	$0.873^{+0.106}_{-0.464}$	$-0.991^{+0.046}_{-0.008}$	undeter.	h.t.s.
090131090	4	-	-	-	-	-	-	-	-	-	-	-	-	-
090328401	8	$-0.238^{+0.695}_{-0.514}$	$0.214^{+0.527}_{-0.690}$	$-0.714^{+0.555}_{-0.212}$	h.t.s.	$-0.238^{+0.799}_{-0.569}$	$0.214^{+0.584}_{-0.792}$	$-0.714^{+0.695}_{-0.230}$	h.t.s.	$-0.238^{+0.959}_{-0.646}$	$0.214^{+0.664}_{-0.947}$	$-0.714^{+0.965}_{-0.253}$	undeter.	undeter.
090424592	32	$0.415^{+0.219}_{-0.280}$	$0.725^{+0.116}_{-0.179}$	$0.078^{+0.288}_{-0.301}$	in.track.	$0.415^{+0.252}_{-0.338}$	$0.725^{+0.132}_{-0.222}$	$0.078^{+0.337}_{-0.356}$	in.track.	$0.415^{+0.311}_{-0.452}$	$0.725^{+0.160}_{-0.312}$	$0.078^{+0.427}_{-0.458}$	in.track.	in.track.
090528516	9	$0.200^{+0.504}_{-0.637}$	$0.450^{+0.370}_{-0.635}$	$-0.933^{+0.167}_{-0.049}$	h.t.s.	$0.200^{+0.563}_{-0.735}$	$0.450^{+0.408}_{-0.755}$	$-0.933^{+0.225}_{-0.053}$	h.t.s.	$0.200^{+0.649}_{-0.890}$	$0.450^{+0.461}_{-0.963}$	$-0.933^{+0.374}_{-0.058}$	h.t.s.	h.t.s.
090530760	5	-	-	-	-	-	-	-	-	-	-	-	-	-
090618353	69	$0.639^{+0.105}_{-0.136}$	$0.812^{+0.058}_{-0.081}$	$-0.773^{+0.095}_{-0.070}$	undeter.	$0.639^{+0.122}_{-0.165}$	$0.812^{+0.068}_{-0.100}$	$-0.773^{+0.117}_{-0.081}$	undeter.	$0.639^{+0.152}_{-0.226}$	$0.812^{+0.083}_{-0.139}$	$-0.773^{+0.162}_{-0.100}$	undeter.	h.t.s.(1st)+in.track.(2nd)
090626189	14	$-0.288^{+0.485}_{-0.372}$	$0.046^{+0.448}_{-0.468}$	$0.332^{+0.354}_{-0.482}$	undeter.	$-0.288^{+0.574}_{-0.422}$	$0.046^{+0.517}_{-0.543}$	$0.332^{+0.401}_{-0.573}$	undeter.	$-0.288^{+0.734}_{-0.503}$	$0.046^{+0.630}_{-0.669}$	$0.332^{+0.476}_{-0.738}$	undeter.	undeter.
090718762	8	$-0.095^{+0.660}_{-0.586}$	$-0.143^{+0.674}_{-0.563}$	$-0.381^{+0.704}_{-0.432}$	undeter.	$-0.095^{+0.749}_{-0.654}$	$-0.143^{+0.768}_{-0.627}$	$-0.381^{+0.823}_{-0.475}$	undeter.	$-0.095^{+0.879}_{-0.752}$	$-0.143^{+0.908}_{-0.718}$	$-0.381^{+1.016}_{-0.533}$	undeter.	undeter.
090719063	20	$0.105^{+0.360}_{-0.390}$	$0.457^{+0.256}_{-0.363}$	$-0.450^{+0.365}_{-0.258}$	undeter.	$0.105^{+0.418}_{-0.459}$	$0.457^{+0.291}_{-0.439}$	$-0.450^{+0.441}_{-0.294}$	undeter.	$0.105^{+0.518}_{-0.582}$	$0.457^{+0.350}_{-0.587}$	$-0.450^{+0.589}_{-0.354}$	undeter.	h.t.s.+in.track.
090804940	2	-	-	-	-	-	-	-	-	-	-	-	-	-
090809978	9	$0.050^{+0.568}_{-0.602}$	$0.433^{+0.380}_{-0.638}$	$-0.950^{+0.129}_{-0.037}$	h.t.s.	$0.050^{+0.641}_{-0.685}$	$0.433^{+0.419}_{-0.757}$	$-0.950^{+0.175}_{-0.040}$	h.t.s.	$0.050^{+0.751}_{-0.812}$	$0.433^{+0.475}_{-0.961}$	$-0.950^{+0.297}_{-0.044}$	h.t.s.	h.t.s.
090820027	83	$0.391^{+0.144}_{-0.166}$	$0.523^{+0.121}_{-0.146}$	$-0.287^{+0.176}_{-0.159}$	in.track.	$0.391^{+0.169}_{-0.200}$	$0.523^{+0.141}_{-0.177}$	$-0.287^{+0.211}_{-0.186}$	in.track.	$0.391^{+0.214}_{-0.267}$	$0.523^{+0.178}_{-0.239}$	$-0.287^{+0.280}_{-0.238}$	in.track.	in.track.
090829672	32	$0.238^{+0.261}_{-0.301}$	$0.489^{+0.197}_{-0.264}$	$-0.257^{+0.300}_{-0.257}$	undeter.	$0.238^{+0.304}_{-0.359}$	$0.489^{+0.227}_{-0.320}$	$-0.257^{+0.358}_{-0.299}$	undeter.	$0.238^{+0.380}_{-0.469}$	$0.489^{+0.278}_{-0.432}$	$-0.257^{+0.469}_{-0.373}$	undeter.	h.t.s.+in.track.
090902462	93	$0.500^{+0.119}_{-0.141}$	$0.741^{+0.069}_{-0.089}$	$-0.636^{+0.115}_{-0.092}$	undeter.	$0.500^{+0.139}_{-0.170}$	$0.741^{+0.080}_{-0.108}$	$-0.636^{+0.139}_{-0.107}$	undeter.	$0.500^{+0.175}_{-0.229}$	$0.741^{+0.100}_{-0.149}$	$-0.636^{+0.190}_{-0.135}$	undeter.	in.track.
090926181	58	$-0.123^{+0.221}_{-0.209}$	$0.365^{+0.175}_{-0.205}$	$-0.654^{+0.146}_{-0.109}$	h.t.s.	$-0.123^{+0.263}_{-0.247}$	$0.365^{+0.205}_{-0.247}$	$-0.654^{+0.178}_{-0.126}$	h.t.s.	$-0.123^{+0.343}_{-0.316}$	$0.365^{+0.258}_{-0.330}$	$-0.654^{+0.244}_{-0.157}$	h.t.s.	h.t.s.+in.track.
091003191	12	$0.056^{+0.484}_{-0.512}$	$0.224^{+0.427}_{-0.534}$	$-0.483^{+0.505}_{-0.309}$	undeter.	$0.056^{+0.554}_{-0.591}$	$0.224^{+0.483}_{-0.626}$	$-0.483^{+0.609}_{-0.345}$	undeter.	$0.056^{+0.667}_{-0.721}$	$0.224^{+0.572}_{-0.782}$	$-0.483^{+0.803}_{-0.399}$	undeter.	h.t.s.(1st)+in.track.(2nd)
091010113	4	-	-	-	-	-	-	-	-	-	-	-	-	-
091120191	5	-	-	-	-	-	-	-	-	-	-	-	-	-
091127976	12	$0.154^{+0.453}_{-0.528}$	$0.350^{+0.373}_{-0.531}$	$0.434^{+0.333}_{-0.517}$	undeter.	$0.154^{+0.515}_{-0.615}$	$0.350^{+0.420}_{-0.630}$	$0.434^{+0.373}_{-0.620}$	undeter.	$0.154^{+0.613}_{-0.760}$	$0.350^{+0.491}_{-0.806}$	$0.434^{+0.434}_{-0.808}$	undeter.	undeter.
091128285	5	-	-	-	-	-	-	-	-	-	-	-	-	-
100122616	2	-	-	-	-	-	-	-	-	-	-	-	-	-
100322045	19	$-0.263^{+0.404}_{-0.329}$	$0.672^{+0.169}_{-0.289}$	$0.668^{+0.171}_{-0.291}$	in.track.	$-0.263^{+0.480}_{-0.378}$	$0.672^{+0.191}_{-0.359}$	$0.668^{+0.193}_{-0.361}$	in.track.	$-0.263^{+0.621}_{-0.460}$	$0.672^{+0.225}_{-0.503}$	$0.668^{+0.228}_{-0.506}$	in.track.	in.track.(2nd)
100324172	9	$0.200^{+0.504}_{-0.637}$	$0.367^{+0.418}_{-0.646}$	$-0.883^{+0.267}_{-0.085}$	h.t.s.	$0.200^{+0.563}_{-0.735}$	$0.367^{+0.462}_{-0.760}$	$-0.883^{+0.353}_{-0.092}$	h.t.s.	$0.200^{+0.649}_{-0.890}$	$0.367^{+0.526}_{-0.949}$	$-0.883^{+0.556}_{-0.102}$	h.t.s.	h.t.s.
100414097	15	$-0.200^{+0.466}_{-0.390}$	$-0.025^{+0.447}_{-0.437}$	$-0.093^{+0.457}_{-0.421}$	undeter.	$-0.200^{+0.548}_{-0.446}$	$-0.025^{+0.519}_{-0.505}$	$-0.093^{+0.533}_{-0.485}$	undeter.	$-0.200^{+0.693}_{-0.538}$	$-0.025^{+0.641}_{-0.621}$	$-0.093^{+0.665}_{-0.591}$	undeter.	undeter.
100511035	3	-	-	-	-	-	-	-	-	-	-	-	-	-
100612726	4	-	-	-	-	-	-	-	-	-	-	-	-	-
100707032	25	$0.406^{+0.248}_{-0.326}$	$0.770^{+0.109}_{-0.185}$	$-0.936^{+0.061}_{-0.032}$	undeter.	$0.406^{+0.284}_{-0.393}$	$0.770^{+0.123}_{-0.231}$	$-0.936^{+0.078}_{-0.036}$	undeter.	$0.406^{+0.347}_{-0.524}$	$0.770^{+0.147}_{-0.331}$	$-0.936^{+0.116}_{-0.042}$	undeter.	h.t.s.
100719989	14	$0.332^{+0.354}_{-0.482}$	$0.499^{+0.280}_{-0.447}$	$-0.776^{+0.284}_{-0.135}$	h.t.s.	$0.332^{+0.401}_{-0.573}$	$0.499^{+0.315}_{-0.542}$	$-0.776^{+0.359}_{-0.150}$	h.t.s.	$0.332^{+0.476}_{-0.738}$	$0.499^{+0.369}_{-0.724}$	$-0.776^{+0.523}_{-0.172}$	h.t.s.	in.track.
100722096	1	-	-	-	-	-	-	-	-	-	-	-	-	-
100724029	47	$0.397^{+0.187}_{-0.227}$	$0.455^{+0.173}_{-0.217}$	$-0.245^{+0.243}_{-0.216}$	undeter.	$0.397^{+0.217}_{-0.273}$	$0.455^{+0.201}_{-0.262}$	$-0.245^{+0.290}_{-0.252}$	undeter.	$0.397^{+0.272}_{-0.365}$	$0.455^{+0.251}_{-0.353}$	$-0.245^{+0.382}_{-0.319}$	undeter.	in.track.
100728095	21	$0.474^{+0.244}_{-0.347}$	$0.741^{+0.131}_{-0.229}$	$-0.537^{+0.328}_{-0.219}$	undeter.	$0.474^{+0.278}_{-0.421}$	$0.741^{+0.147}_{-0.286}$	$-0.537^{+0.400}_{-0.249}$	undeter.	$0.474^{+0.334}_{-0.565}$	$0.741^{+0.174}_{-0.408}$	$-0.537^{+0.544}_{-0.299}$	in.track.	in.track.

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Table B.1 – continued from previous page

GRB name	N	$\rho_{\rm ph}(90\%)$	$\rho_{\rm en}(90\%)$	$\rho_{\rm t}(90\%)$	trend(90%)	$\rho_{\rm ph}(95\%)$	$\rho_{\rm en}(95\%)$	$\rho_{\rm t}(95\%)$	trend(95%)	$\rho_{\rm ph}(99\%)$	$\rho_{\rm en}(99\%)$	$\rho_{\rm t}(99\%)$	trend(99%)	trend(by eyes)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
100826957	21	$0.165^{+0.339}_{-0.383}$	$0.318^{+0.297}_{-0.376}$	$0.031^{+0.365}_{-0.373}$	undeter.	$0.165^{+0.392}_{-0.452}$	$0.318^{+0.341}_{-0.450}$	$0.031^{+0.426}_{-0.437}$	undeter.	$0.165^{+0.484}_{-0.579}$	$0.318^{+0.415}_{-0.589}$	$0.031^{+0.532}_{-0.551}$	undeter.	in.track.
100829876	5	-	-	-	-	-	-	-	-	-	-	-	-	-
100910818	5	-	-	-	-	-	-	-	-	-	-	-	-	-
100918863	26	$0.762^{+0.111}_{-0.185}$	$0.843^{+0.075}_{-0.133}$	$0.162^{+0.305}_{-0.340}$	in.track.	$0.762^{+0.125}_{-0.230}$	$0.843^{+0.085}_{-0.167}$	$0.162^{+0.355}_{-0.402}$	in.track.	$0.762^{+0.150}_{-0.329}$	$0.843^{+0.101}_{-0.242}$	$0.162^{+0.443}_{-0.519}$	in.track.	in.track.
101014175	43	$0.236^{+0.227}_{-0.256}$	$0.506^{+0.168}_{-0.217}$	$0.090^{+0.247}_{-0.258}$	in.track.	$0.236^{+0.265}_{-0.305}$	$0.506^{+0.194}_{-0.264}$	$0.090^{+0.290}_{-0.306}$	in.track.	$0.236^{+0.334}_{-0.401}$	$0.506^{+0.240}_{-0.357}$	$0.090^{+0.370}_{-0.397}$	in.track.	h.t.s.+in.track.
101023951	10	$0.709^{+0.197}_{-0.451}$	$0.818^{+0.126}_{-0.333}$	$-0.285^{+0.602}_{-0.439}$	in.track.	$0.709^{+0.216}_{-0.566}$	$0.818^{+0.137}_{-0.429}$	$-0.285^{+0.705}_{-0.491}$	in.track.	$0.709^{+0.243}_{-0.797}$	$0.818^{+0.154}_{-0.642}$	$-0.285^{+0.877}_{-0.568}$	in.track.	in.track.
101123952	39	$0.369^{+0.210}_{-0.256}$	$0.496^{+0.178}_{-0.233}$	$-0.521^{+0.226}_{-0.171}$	h.t.s.	$0.369^{+0.244}_{-0.308}$	$0.496^{+0.206}_{-0.282}$	$-0.521^{+0.275}_{-0.197}$	h.t.s.	$0.369^{+0.304}_{-0.411}$	$0.496^{+0.254}_{-0.382}$	$-0.521^{+0.373}_{-0.243}$	h.t.s.	h.t.s.+in.track.
101126198	11	$-0.536^{+0.519}_{-0.291}$	$-0.273^{+0.566}_{-0.424}$	$-0.264^{+0.566}_{-0.428}$	undeter.	$-0.536^{+0.630}_{-0.323}$	$-0.273^{+0.664}_{-0.477}$	$-0.264^{+0.663}_{-0.482}$	undeter.	$-0.536^{+0.838}_{-0.370}$	$-0.273^{+0.831}_{-0.558}$	$-0.264^{+0.829}_{-0.564}$	undeter.	undeter.
101231067	4	-	-	-	-	-	-	-	-	-	-	-	-	-
110213220	0	-	-	-	-	-	-	-	-	-	-	-	-	-
110301214	27	$-0.042^{+0.328}_{-0.319}$	$0.031^{+0.320}_{-0.327}$	$-0.315^{+0.325}_{-0.265}$	undeter.	$-0.042^{+0.385}_{-0.373}$	$0.031^{+0.375}_{-0.384}$	$-0.315^{+0.389}_{-0.306}$	undeter.	$-0.042^{+0.491}_{-0.472}$	$0.031^{+0.475}_{-0.489}$	$-0.315^{+0.512}_{-0.377}$	undeter.	h.t.s.+in.track.
110407998	5	-	-	-	-	-	-	-	-	-	-	-	-	-
110428388	5	-	-	-	-	-	-	-	-	-	-	-	-	-
110622158	14	$-0.086^{+0.474}_{-0.438}$	$-0.042^{+0.467}_{-0.450}$	$-0.459^{+0.459}_{-0.299}$	undeter.	$-0.086^{+0.552}_{-0.504}$	$-0.042^{+0.542}_{-0.518}$	$-0.459^{+0.554}_{-0.337}$	undeter.	$-0.086^{+0.684}_{-0.612}$	$-0.042^{+0.668}_{-0.632}$	$-0.459^{+0.732}_{-0.395}$	undeter.	undeter.
110625881	38	$-0.007^{+0.272}_{-0.271}$	$0.311^{+0.226}_{-0.267}$	$-0.439^{+0.248}_{-0.196}$	undeter.	$-0.007^{+0.320}_{-0.319}$	$0.311^{+0.263}_{-0.321}$	$-0.439^{+0.300}_{-0.226}$	undeter.	$-0.007^{+0.417}_{-0.408}$	$0.311^{+0.328}_{-0.424}$	$-0.439^{+0.403}_{-0.280}$	undeter.	in.track.
110717319	13	$0.363^{+0.354}_{-0.502}$	$0.615^{+0.229}_{-0.421}$	$-0.011^{+0.480}_{-0.475}$	in.track.	$0.363^{+0.399}_{-0.598}$	$0.615^{+0.256}_{-0.518}$	$-0.011^{+0.554}_{-0.548}$	in.track.	$0.363^{+0.469}_{-0.772}$	$0.615^{+0.295}_{-0.712}$	$-0.011^{+0.677}_{-0.667}$	undeter.	in.track.
110721200	12	$-0.538^{+0.485}_{-0.279}$	$0.049^{+0.486}_{-0.511}$	$-0.490^{+0.502}_{-0.305}$	undeter.	$-0.538^{+0.590}_{-0.311}$	$0.049^{+0.557}_{-0.589}$	$-0.490^{+0.607}_{-0.341}$	undeter.	$-0.538^{+0.789}_{-0.359}$	$0.049^{+0.671}_{-0.718}$	$-0.490^{+0.802}_{-0.394}$	undeter.	h.t.s.
110729142	7	$0.571^{+0.329}_{-0.743}$	$0.607^{+0.303}_{-0.725}$	$-0.107^{+0.721}_{-0.623}$	undeter.	$0.571^{+0.355}_{-0.890}$	$0.607^{+0.326}_{-0.876}$	$-0.107^{+0.810}_{-0.689}$	undeter.	$0.571^{+0.388}_{-1.135}$	$0.607^{+0.356}_{-1.132}$	$-0.107^{+0.935}_{-0.777}$	undeter.	undeter.
110731465	7	$-0.036^{+0.692}_{-0.660}$	$0.643^{+0.277}_{-0.702}$	$0.929^{+0.057}_{-0.251}$	undeter.	$-0.036^{+0.773}_{-0.732}$	$0.643^{+0.298}_{-0.856}$	$0.929^{+0.061}_{-0.345}$	undeter.	$-0.036^{+0.884}_{-0.832}$	$0.643^{+0.325}_{-1.124}$	$0.929^{+0.066}_{-0.583}$	undeter.	undeter.
110817191	4	-	-	-	-	-	-	-	-	-	-	-	-	-
110825102	20	$0.087^{+0.364}_{-0.389}$	$0.720^{+0.143}_{-0.251}$	$0.421^{+0.269}_{-0.371}$	in.track.	$0.087^{+0.423}_{-0.457}$	$0.720^{+0.161}_{-0.313}$	$0.421^{+0.307}_{-0.447}$	in.track.	$0.087^{+0.525}_{-0.578}$	$0.720^{+0.191}_{-0.444}$	$0.421^{+0.370}_{-0.595}$	in.track.	in.track.
110903009	2	-	-	-	-	-	-	-	-	-	-	-	-	-
110920546	17	$0.583^{+0.220}_{-0.359}$	$0.848^{+0.086}_{-0.179}$	$-0.968^{+0.043}_{-0.019}$	undeter.	$0.583^{+0.248}_{-0.441}$	$0.848^{+0.096}_{-0.228}$	$-0.968^{+0.056}_{-0.021}$	undeter.	$0.583^{+0.292}_{-0.604}$	$0.848^{+0.111}_{-0.339}$	$-0.968^{+0.089}_{-0.024}$	undeter.	h.t.s.
110921912	11	$-0.187^{+0.560}_{-0.460}$	$-0.027^{+0.531}_{-0.516}$	$-0.437^{+0.550}_{-0.345}$	undeter.	$-0.187^{+0.652}_{-0.521}$	$-0.027^{+0.609}_{-0.590}$	$-0.437^{+0.658}_{-0.384}$	undeter.	$-0.187^{+0.805}_{-0.613}$	$-0.027^{+0.735}_{-0.707}$	$-0.437^{+0.852}_{-0.443}$	undeter.	undeter.
111003465	6	$0.086^{+0.690}_{-0.784}$	$0.714^{+0.237}_{-0.768}$	$-0.829^{+0.599}_{-0.144}$	h.t.s.	$0.086^{+0.753}_{-0.866}$	$0.714^{+0.252}_{-0.946}$	$-0.829^{+0.777}_{-0.152}$	h.t.s.	$0.086^{+0.832}_{-0.971}$	$0.714^{+0.269}_{-1.245}$	$-0.829^{+1.123}_{-0.162}$	undeter.	h.t.s.+in.track.
111127810	0	-	-	-	-	-	-	-	-	-	-	-	-	-
111216389	9	$-0.167^{+0.631}_{-0.519}$	$0.483^{+0.350}_{-0.627}$	$-0.600^{+0.578}_{-0.277}$	h.t.s.	$-0.167^{+0.726}_{-0.581}$	$0.483^{+0.385}_{-0.750}$	$-0.600^{+0.707}_{-0.304}$	undeter.	$-0.167^{+0.875}_{-0.673}$	$0.483^{+0.435}_{-0.964}$	$-0.600^{+0.944}_{-0.341}$	undeter.	in.track.
111220486	9	$0.483^{+0.350}_{-0.627}$	$0.650^{+0.245}_{-0.547}$	$-0.317^{+0.647}_{-0.445}$	in.track.	$0.483^{+0.385}_{-0.750}$	$0.650^{+0.268}_{-0.675}$	$-0.317^{+0.757}_{-0.494}$	undeter.	$0.483^{+0.435}_{-0.964}$	$0.650^{+0.299}_{-0.919}$	$-0.317^{+0.936}_{-0.564}$	undeter.	in.track.
111228657	1	-	-	-	-	-	-	-	-	-	-	-	-	-
120119170	15	$0.475^{+0.283}_{-0.433}$	$0.743^{+0.149}_{-0.295}$	$-0.450^{+0.440}_{-0.294}$	in.track.	$0.475^{+0.319}_{-0.524}$	$0.743^{+0.166}_{-0.371}$	$-0.450^{+0.531}_{-0.332}$	in.track.	$0.475^{+0.376}_{-0.698}$	$0.743^{+0.193}_{-0.533}$	$-0.450^{+0.703}_{-0.392}$	in.track.	in.track.
120129580	29	$0.390^{+0.236}_{-0.301}$	$0.600^{+0.168}_{-0.246}$	$-0.083^{+0.318}_{-0.302}$	in.track.	$0.390^{+0.272}_{-0.363}$	$0.600^{+0.192}_{-0.301}$	$-0.083^{+0.375}_{-0.353}$	in.track.	$0.390^{+0.335}_{-0.483}$	$0.600^{+0.233}_{-0.414}$	$-0.083^{+0.481}_{-0.446}$	in.track.	in.track.
120204054	44	$0.216^{+0.227}_{-0.253}$	$0.547^{+0.155}_{-0.204}$	$-0.136^{+0.255}_{-0.239}$	in.track.	$0.216^{+0.266}_{-0.302}$	$0.547^{+0.179}_{-0.249}$	$-0.136^{+0.304}_{-0.280}$	in.track.	$0.216^{+0.336}_{-0.397}$	$0.547^{+0.222}_{-0.338}$	$-0.136^{+0.395}_{-0.356}$	in.track.	in.track.
120226871	13	$0.022^{+0.473}_{-0.483}$	$0.093^{+0.453}_{-0.496}$	$-0.335^{+0.505}_{-0.366}$	undeter.	$0.022^{+0.544}_{-0.557}$	$0.093^{+0.519}_{-0.576}$	$-0.335^{+0.662}_{-0.413}$	undeter.	$0.022^{+0.600}_{-0.682}$	$0.093^{+0.627}_{-0.711}$	$-0.335^{+0.770}_{-0.487}$	undeter.	undeter.
120323507	9	$-0.250^{+0.644}_{-0.479}$	$0.200^{+0.504}_{-0.637}$	$0.450^{+0.370}_{-0.635}$	undeter.	$-0.250^{+0.747}_{-0.534}$	$0.200^{+0.563}_{-0.735}$	$0.450^{+0.408}_{-0.755}$	undeter.	$-0.250^{+0.912}_{-0.613}$	$0.200^{+0.649}_{-0.890}$	$0.450^{+0.461}_{-0.963}$	undeter.	in.track.
120328268	26	$0.361^{+0.256}_{-0.326}$	$0.590^{+0.180}_{-0.267}$	$-0.653^{+0.241}_{-0.156}$	undeter.	$0.361^{+0.295}_{-0.392}$	$0.590^{+0.205}_{-0.327}$	$-0.653^{+0.297}_{-0.177}$	undeter.	$0.361^{+0.362}_{-0.519}$	$0.590^{+0.248}_{-0.450}$	$-0.653^{+0.414}_{-0.213}$	undeter.	h.t.s.+in.track.
120426090	11	$0.064^{+0.505}_{-0.540}$	$0.164^{+0.470}_{-0.558}$	$-0.600^{+0.489}_{-0.255}$	h.t.s.	$0.064^{+0.575}_{-0.621}$	$0.164^{+0.532}_{-0.647}$	$-0.600^{+0.600}_{-0.282}$	h.t.s.	$0.064^{+0.687}_{-0.753}$	$0.164^{+0.628}_{-0.796}$	$-0.600^{+0.814}_{-0.322}$	undeter.	h.t.s.
120526303	10	$0.042^{+0.539}_{-0.565}$	$0.782^{+0.150}_{-0.378}$	$-0.418^{+0.593}_{-0.370}$	in.track.	$0.042^{+0.612}_{-0.646}$	$0.782^{+0.164}_{-0.482}$	$-0.418^{+0.705}_{-0.411}$	in.track.	$0.042^{+0.726}_{-0.773}$	$0.782^{+0.184}_{-0.705}$	$-0.418^{+0.902}_{-0.471}$	in.track.	in.track.
120624933	18	$0.193^{+0.358}_{-0.418}$	$0.358^{+0.306}_{-0.408}$	$0.168^{+0.365}_{-0.418}$	undeter.	$0.193^{+0.412}_{-0.494}$	$0.358^{+0.349}_{-0.489}$	$0.168^{+0.421}_{-0.492}$	undeter.	$0.193^{+0.503}_{-0.631}$	$0.358^{+0.420}_{-0.640}$	$0.168^{+0.515}_{-0.626}$	undeter.	h.t.s.+in.track.
120707800	12	$0.650^{+0.217}_{-0.427}$	$0.748^{+0.160}_{-0.351}$	$-0.189^{+0.532}_{-0.440}$	in.track.	$0.650^{+0.241}_{-0.528}$	$0.748^{+0.177}_{-0.443}$	$-0.189^{+0.621}_{-0.499}$	in.track.	$0.650^{+0.276}_{-0.733}$	$0.748^{+0.201}_{-0.638}$	$-0.189^{+0.772}_{-0.593}$	in.track.	in.track.
120711115	31	$0.324^{+0.246}_{-0.299}$	$0.515^{+0.192}_{-0.262}$	$0.014^{+0.300}_{-0.302}$	in.track.	$0.324^{+0.284}_{-0.358}$	$0.515^{+0.220}_{-0.318}$	$0.014^{+0.353}_{-0.356}$	in.track.	$0.324^{+0.352}_{-0.473}$	$0.515^{+0.269}_{-0.432}$	$0.014^{+0.449}_{-0.454}$	in.track.	in.track.

Appendix C: Identified significant blackbodies

Table C.1. Best-fit parameters of the identified significant blackbodies of the PLBB model. Column (1) lists the GRB names. Column (2) lists the spectrum numbers within individual burst. Column (3) lists the start times $T_{\rm start}$ and end times $T_{\rm stop}$ for the time bins. Columns(4) - (7) list the best-fit parameters of the PLBB model. Column (7) lists the values of ΔCSTAT = CSTAT(BEST) − CSTAT(PLBB). [a]We note that for these 2 spectra the BEST models are SBPL (the rest BEST models from this burst are all COMP), CSTAT values between SBPL and PLBB are directly compared without performing any simulations.

GRB name	spectrum	$T_{\rm start}$:$T_{\rm stop}$	$A_{\rm PL}$	α	$A_{\rm BB}$	kT	ΔCSTAT
		(s)	(ph s^{-1} cm^{-2} keV^{-1})		(ph s^{-1} cm^{-2} keV^{-1})	(keV)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
090618353	46	79.706:80.155	0.0249 ± 0.0061	−1.70 ± 0.06	$3.135E-04 \pm 1.22E-04$	22.12 ± 1.72	57.57
090618353	77	96.641:110.742	0.0051 ± 0.0010	−1.88 ± 0.03	$1.333E-04 \pm 3.59E-05$	15.59 ± 0.81	128.1
090902462[a]	10	6.433:6.851	0.0216 ± 0.0021	−1.56 ± 0.05	$1.456E-06 \pm 1.79E-07$	181.20 ± 6.14	12.43
090902462[a]	11	6.851:7.218	0.0233 ± 0.0024	−1.58 ± 0.06	$1.600E-06 \pm 2.08E-07$	175.70 ± 6.18	29.47
090902462	12	7.218:7.500	0.0315 ± 0.0031	−1.61 ± 0.05	$2.050E-06 \pm 2.78E-07$	170.50 ± 6.25	82.4
090902462	13	7.500:7.774	0.0387 ± 0.0037	−1.62 ± 0.05	$9.601E-07 \pm 1.28E-07$	222.10 ± 8.40	59.65
090902462	14	7.774:7.958	0.0516 ± 0.0048	−1.63 ± 0.05	$9.149E-07 \pm 1.48E-07$	227.70 ± 10.50	102.04
090902462	15	7.958:8.119	0.0804 ± 0.0069	−1.65 ± 0.04	$9.125E-07 \pm 1.60E-07$	228.50 ± 11.60	67.74
090902462	16	8.119:8.280	0.0635 ± 0.0068	−1.71 ± 0.05	$1.179E-06 \pm 2.15E-07$	204.90 ± 10.40	53.62
090902462	17	8.280:8.424	0.0672 ± 0.0068	−1.76 ± 0.05	$8.905E-07 \pm 1.53E-07$	237.60 ± 11.80	181.34
090902462	18	8.424:8.563	0.0708 ± 0.0065	−1.66 ± 0.04	$1.150E-06 \pm 2.22E-07$	210.40 ± 11.50	125.79
090902462	19	8.563:8.706	0.0681 ± 0.0069	−1.76 ± 0.05	$7.986E-07 \pm 1.42E-07$	240.00 ± 12.30	153.02
090902462	20	8.706:8.874	0.0590 ± 0.0061	−1.75 ± 0.04	$5.968E-07 \pm 1.13E-07$	244.80 ± 13.50	129.94
090902462	21	8.874:9.030	0.0630 ± 0.0063	−1.72 ± 0.05	$1.093E-06 \pm 1.97E-07$	213.70 ± 10.90	148.11
090902462	22	9.030:9.184	0.0772 ± 0.0073	−1.75 ± 0.04	$6.380E-07 \pm 1.05E-07$	264.90 ± 12.90	177.34
090902462	23	9.184:9.315	0.0955 ± 0.0089	−1.71 ± 0.04	$1.088E-06 \pm 2.37E-07$	206.80 ± 12.70	83.87
090902462	24	9.315:9.443	0.0806 ± 0.0088	−1.78 ± 0.05	$1.569E-06 \pm 3.36E-07$	184.40 ± 10.80	536.44
090902462	25	9.443:9.595	0.0890 ± 0.0086	−1.77 ± 0.04	$1.567E-06 \pm 3.22E-07$	184.50 ± 10.40	115.81
090902462	26	9.595:9.721	0.0841 ± 0.0091	−1.78 ± 0.05	$3.432E-06 \pm 7.35E-07$	146.70 ± 8.08	97.97
090902462	27	9.721:9.816	0.1082 ± 0.0117	−1.79 ± 0.05	$7.694E-06 \pm 1.28E-06$	137.40 ± 5.79	110.98
090902462	28	9.816:9.938	0.0940 ± 0.0104	−1.83 ± 0.05	$5.745E-06 \pm 1.18E-06$	128.70 ± 6.56	95.97
090902462	29	9.938:10.059	0.0726 ± 0.0081	−1.73 ± 0.05	$3.282E-06 \pm 6.22E-07$	154.90 ± 7.61	73.25
090902462	30	10.059:10.206	0.0663 ± 0.0076	−1.81 ± 0.06	$2.682E-06 \pm 4.41E-07$	168.50 ± 7.36	126.01
090902462	31	10.206:10.383	0.0550 ± 0.0067	−1.85 ± 0.06	$2.792E-06 \pm 4.81E-07$	155.40 ± 6.97	126.13
090902462	32	10.383:10.561	0.0659 ± 0.0066	−1.78 ± 0.05	$8.862E-07 \pm 1.40E-07$	234.30 ± 10.70	159.15
090902462	33	10.561:10.720	0.0678 ± 0.0068	−1.74 ± 0.05	$1.050E-06 \pm 1.85E-07$	218.80 ± 11.00	136.11
090902462	34	10.720:10.881	0.0826 ± 0.0081	−1.71 ± 0.04	$1.020E-06 \pm 2.25E-07$	199.20 ± 12.30	43.77
090902462	35	10.881:11.011	0.0665 ± 0.0068	−1.71 ± 0.05	$2.275E-06 \pm 4.08E-07$	176.10 ± 8.45	124.71
090902462	36	11.011:11.145	0.0837 ± 0.0080	−1.68 ± 0.04	$3.913E-06 \pm 7.07E-07$	150.70 ± 7.16	54.48
090902462	37	11.145:11.326	0.0505 ± 0.0055	−1.76 ± 0.05	$1.764E-06 \pm 3.30E-07$	171.00 ± 8.50	128.03
090902462	38	11.326:11.521	0.0403 ± 0.0052	−1.83 ± 0.06	$2.410E-06 \pm 5.04E-07$	142.30 ± 7.58	110.62
090902462	39	11.521:11.718	0.0478 ± 0.0051	−1.68 ± 0.05	$2.258E-06 \pm 3.98E-07$	160.60 ± 7.38	83.84
090902462	40	11.718:11.934	0.0448 ± 0.0054	−1.84 ± 0.06	$2.277E-06 \pm 3.93E-07$	158.80 ± 7.21	158.65
090902462	41	11.934:12.204	0.0498 ± 0.0054	−1.72 ± 0.04	$2.949E-06 \pm 8.41E-07$	114.80 ± 8.21	34.59
110622158	13	29.726:31.428	0.0084 ± 0.0024	−1.79 ± 0.07	$7.874E-05 \pm 3.01E-05$	26.23 ± 1.28	155.02
110622158	15	33.430:36.752	0.0046 ± 0.0015	−1.72 ± 0.05	$6.697E-05 \pm 2.49E-05$	21.13 ± 1.10	155.29

Appendix D: Connection to time-integrated catalogs: the GOOD sample

In the first two GBM GRB time-integrated spectral catalogs (Goldstein et al. 2012; Gruber et al. 2014), a GOOD sample was defined. We do not show the GOOD sample statistics in this catalog, because we found that the GOOD criteria do not guarantee good fits. We investigate this effect here in the current appendix section.

Since the definition of the GOOD sample does not include any goodness-of-fit measure, it is necessary to investigate the performance of the fits w.r.t. the data, manifested by the CSTAT values. In Fig. D.1 we plot the differences between the CSTAT values, ΔCSTAT, for every pair of GOOD fits for each spectrum. The top left, top right, bottom left, and bottom right panel show the ΔCSTAT between the other models and BAND, SBPL, COMP, and PL, respectively. For BAND and SBPL, it can be seen that when they are GOOD but not BEST, their ΔCSTATs are $\sim$ 0.5 - 50 comparing to COMP (a 3-parameters model) and the other 4-parameters models, and even larger ($\sim$ 100) comparing to PL (a 2-parameters model). This indicates that the GOOD BAND and SBPL are generally reliable good fits. The ΔCSTAT of the GOOD-but-not-BEST COMP are concentrated ~ -60 to -10, and that for the BEST fits are within -11.83 to 10, indicating that the GOOD-but-not-BEST COMP do not perform as well as the BEST COMP w.r.t. data.

However, looking at the ΔCSTAT of PL, we can immediately see that most of the GOOD-but-not-BEST PL have very negative values. This indicates that the GOOD statistics of PL's α are not reliable. Moreover, in almost all of the BEST PL cases, PL becomes BEST by default, as there are no other models that lead to GOOD fits. While this issue does not necessarily imply bad description of the data by PL, we suggest researchers always perform careful inspection of the PL fit results. Nevertheless, this issue does not affect the current catalog results, because all analyses are done using the BEST sample and do not include PL fits.

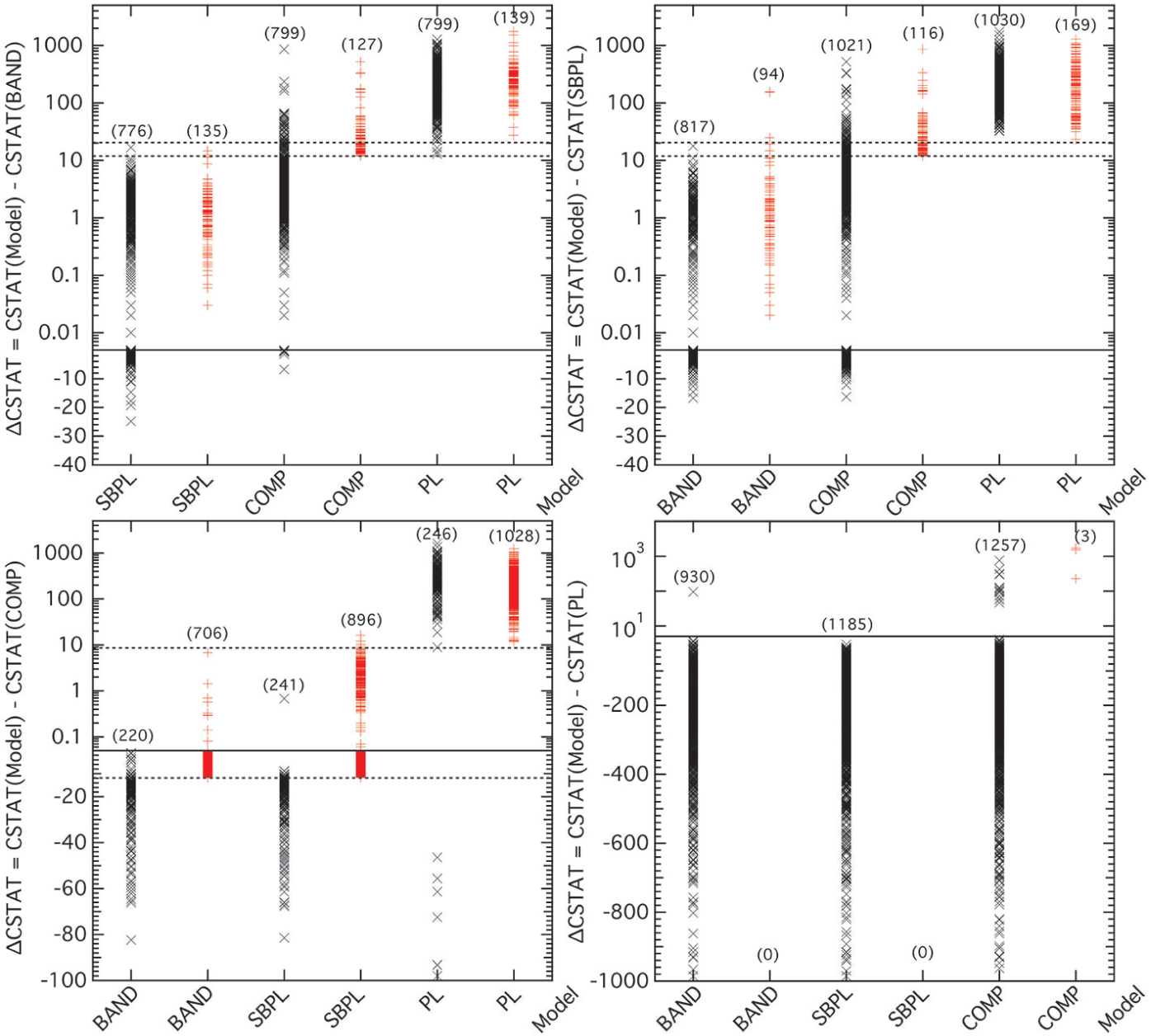

Fig. D.1. Difference between the CSTAT values for every pairs of GOOD fits from each spectrum. The top left, top right, bottom left, and bottom right panel shows the CSTAT differences, ΔCSTAT, between the other models and BAND, SBPL, COMP, and PL, respectively. Red crosses indicate the latter model is the BEST model (i.e., also a GOOD model), and black crosses indicate the latter model is the GOOD-but-not-BEST model. The numbers in brackets indicate the numbers of pairs of models compared (those spectra with only one GOOD and/or BEST fits were not compared). The two dashed lines indicate 11.83 and 11.83 + 8.58 = 20.41 in the top panels, and −11.83 and 8.58 in the bottom left panel. The solid line separates the logarithmic positive y-axis and linear negative y-axis. One black cross for CSTAT(PL) − CSTAT(BAND) = −95, about 20 black crosses for CSTAT(SBPL) − CSTAT(COMP) and CSTAT(PL) − CSTAT(COMP) down to ∼ −1700, and about 20 black crosses for CSTAT(Model) − CSTAT(PL) down to ∼ −6800 are not shown for clear display purpose.